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UNIVERSITY OF CALIFORNIA
MUSEUM OF VERTEBRATE ZOOLOGY

Feathers, D A.
1933 - 1935

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Section 1

Feathers, D.C.

Tehama Co., Calif.

Nov.-Dec. 1933

Feathers, Da.
Tehama Co., Calif.
Nov. 19 - Dec. 18, 1933
5 pp.

a. Feather

Darida Ranch, Hunter District 20 mi.
W. Red Bluff, Tehama Co., Calif.
(altitude unknown at writing)

Nov. 19, 1933.

Went to Dwyer Creek Canyon, where the previous day I had discovered a colony of bats in a rock crevice. Discovery had resulted from hearing the bats squeaking. I was able to secure one specimen of Tadarida with a tweezer arrangement of slender sticks.

The canyon walls are rugged, sandstone formation, with water in "potholes". The crevice containing the bats is approximately 1 in. wide, 3 ft. deep, vertical, just above high-water line and with a southern exposure. The crevice must contain a dozen bats.

The specimen was taken alive, in a semi-dormant state. After remaining for a few hours in a warm room it flew rather clumsily. It was quite fat.

77. ♂ Tadarida 94-32-10-43

Nov. 23, 1933.

At 9ᵒᵒ A.M. my hound, Bugle, commenced trailing something away from the close ~~vicinity~~ vicinity of the house. Taking a .22 rifle, I followed slowly. Within a mile three young coons (at least) were attached by the dog on the ground.

20 mi. W Red Bluff,
Tehama Co., Calif.

Nov. 23, 1933.

(cont.) One coon climbed a manzanita bush, one climbed a digger pine and the hound killed the third. I shot the one in the bush. The coon in the tree remained there during an absence of ten minutes, and was then shaken out and killed by the old hound and a young hound. This was done to provide training for the young hound.

78.	♂	Procyon	720-265-115-54
79.	♀	Procyon	707-283-117-57
80.	♂	Procyon	718-254-120-57

Nov. 30, 1933.

Traps were set about a dead chicken near the house. A very fact skunk was caught under ordinary circumstances.

81.	♀	Mephitis	605-290-70-28.

Dec. 1, 1933.

After walking about two miles up Cold Fork Creek, at about 11:00 A.M. my hound started on a hot trail. In 15 or 20 minutes he had treed a coon in a hollow white oak tree. The hound voluntarily remained at the tree while I returned to the house for an axe and the pup. On returning, I chopped the tree down.

20 mi. W Red Bluff,
Tehama Co., Calif.

Dec. 1, 1933

(cont.) The coon was ousted from the hollow with difficulty, but was then soon despatched

The weather was cold and dry, and the specimen was very fat.

82. ♂ Procyon 865-290-130-60

Dec. 5, 1933.

A coon was cold-trailed into a hollow tree by the hound, Bugle, about 7^oo A.M. It was forced from the hollow after the tree had been chopped into at the base, and then killed by the two hounds after a vicious fight.

The den entrance was not over four feet from the ground, in a white oak tree.

The coon was very fat. Stomach contents: Manzanita berries, exclusively.

83. ♀ Procyon 905-310-125-57

Dec. 18, 1933.

The hound started on a hot track about 7^oo A.M. and soon "barked up" at a white oak tree. The den entrance was not over four feet from the ground, south slope, a few hundred feet above the bed of Red Bank Creek, one mile from the base camp. The hound

20 mi. W Red Bluff,
Tehama Co., Calif.

Dec. 18, 1933.

(cont.) was left there, free, while I returned to base for an axe and the young hound. On returning to the tree I found the hound had left the tree and was again trailing. Ascertaining that the coon was still in the den tree, I left the pup there on chain and followed the old hound. The second coon treed in a dead white oak stump. I gained entrance by battering a hole with an old fence post, and shot the coon.

In all cases of coons treed on this expedition the den trees were a hundred feet or more above any creek bed.

The first coon treed was re-treed a few times to train the young hound and was then shot.

Stomach contents for both specimens were exclusively manzanita berries.

84. ♂ Procyon 850-295-125-60

85. ♂ Procyon 635-50-127-58

Specimen no. 85 had lost the greater part of its tail at some early period of its existence. The stub had completely healed.

Note: For localities visited on Colorado River trip see maps in notebooks of Seth B. Benson and Robert. T. Orr.

Section 2

Nevada: Clark Co., along Colorado River

1934

Feathers, D. C.

Feathers, D.A.

Nevada: Clark Co. along Colorado River
Jan. 9 - Feb. 14, 1934
#77 - 146

pp. 1 - 48
+ many unnumbered

Specimens collected belong to Accession #4282, and are included in:
Bird Catalog #64059-64358
Mammal Catalog 61412 - 61916
Rept & Amp. Catalog

For map, see notes of SB Benson and RJ Orr, for same trip

a. Feathers. 1.

Jan. 9, 1934.

500+ ft., Colorado R., 1¾ mi. S. E.
Searchlight, Clark Co., Nevada.

✓ 86.	♂	Lophortyx gambeli.	Wt. 157.6 gr.
✓ 87.	♀	" "	" 176.5 "
✓ 88.	?	Dryobates scalaris cactophilus.	33.8 "

Jan. 12, 1934.

✓ 89.	♂	Urocyon cinereoargenteus.	947-410-135-75

Jan. 13, 1934.

✓ 90.	♀	Polioptila.	Wt. 5.0 gr.
(skeleton only) ✓ 91.	♂	Buteo borealis.	

Jan. 14, 1934.

✓ 92.	♂	Hylocichla guttata.	Wt. 24.7 gr.

Jan. 15, 1934.

Jap. Ranch, 500+ ft., Colorado R., 1¼ mi.
S. E. Searchlight, Clark Co., Nev.

✓ 93.	♂	Urocyon cinereoargenteus.	1030-435-145-75
✓ 94.	♂	Canis latrans.	1195-335-200-117

Jan. 16, 1934.

✓ 95.	♂	Myadestes townsendii.	Wt. 32.4 gr.

Jan. 17, 1934.

✓ 96.	♂	Urocyon cinereoargenteus.	1000-425-140-77

Jan. 18, 1934.

✓ 97.	♀	Taxidea taxus.	615-115-102-43
~~98.~~	~~♀~~	~~Lamprospermophilus leucurus.~~	~~See D. M. Hatfield.~~

Jan. 19, 1934.

Wt. 903 gr. ✓ 100.	♀	Mephitis mephitis.	610-320-— 24.

Jan. 20, 1934.

101.	?	Uta stansburiana.	

Jan. 21, 1934.

✓ 102.	♂	Mephitis mephitis.	633-295-73-26

Q. Feathers. Colorado R., ½ mi. N Nev.- Calif. monument, Clark Co., Nev.

Jan. 28, 1934.

v 103. ♀ Sayornis nigricans. Wt. 16.9 gr.

104. ? Uta stansburiana.

Colorado R., 6 mi. N, 2 mi. W Nev.- Calif. monument, Clark Co., Nev.

Jan. 29, 1934.

v 105. ♂ Mephitis. Caught by Calvin Bradshaw 610-265-66-27

(skull only) v 106. ? Vulpes macrotis arsipus. (caught by Calvin Bradshaw)

Colorado R., ½ mi. N Nev.- Calif. monument, Clark Co., Nev.

Jan. 29, 1934.

v 107. ♂ Oreoscoptes montanus. Wt. 39.1 gr.

Jan. 31, 1934.

v 108. ♀ Centurus uropygialis. Wt. 56.5 gr.

v 109. ♂ Hylocichla guttata. Wt. 21.5 gr.

v 110. ♂ Dendroica auduboni auduboni. Wt. 12.6 gr.

(carcass only) v 111. ♂ Troglodytes aedon parkmani. Wt. 9.5 gr.

Feb. 2, 1934.

v 112. ♀ Centurus uropygialis. Wt. 66.9 gr.

v 113. Sphyrapicus varius nuchalis. Wt. 53 gr.

Feb. 2, 1934.

v 114. ♀ Ardea herodias.

Feb. 3, 1934.

v 115. ♀ Castor canadensis. D. Snyder 1200-530-200-35

Colorado R., 2 mi. N Nev.- Calif. monument, Clark Co., Nev.

Feb. 3, 1934

v 116. ♂ Ondatra. 461-205-69-15. Wt. 726. gr.

Colorado R., 2½ mi. N Nev.- Calif. monument, Clark Co., Nev.

Feb. 4, 1934

117.	♂	Taxidea taxus.	673-115-106-49.

Colorado R., 2 mi. N Nev.- Calif. monument, Clark Co., Nev.

Feb. 4, 1934.

118.	♀	Ondatra.	440-190-65-15. Wt. 601. gr.
119.	♂	Ondatra,	436-180-64-16. Wt. 648.7
120.	♂	Castor canadensis.	849-395-150-29.
121.	♂	Pipistrellus hesperus.	68-30-5-10. Wt. 2.9 gr.

Feb. 6, 1934.

122.	♂	Ondatra.	470-205-70-15. Wt. 723.5
123.	♂	Urocyon.	935-405-133-77. Coll. Snyder.
124.	♂	Mephitis.	619-295-65-26. " "
125.	♂	Mephitis.	643-305-72-28. " "

Colorado R., 8 mi. N Nev.- Calif. monument, Clark Co., Nev.

Feb. 7, 1934.

126	♂	Lynchiscus nevadensis.	

Colorado R., ½ mi. N Nev.- Calif. monuments, Clark Co., Nev.

Feb. 8, 1934.

127.	♂	Mephitis.	683-315-75-28.
128.	♀	Felis.	710-250-118-58.

Colorado R., 2 mi. N Nev.- Calif. monument, Clark Co., Nev.

Feb. 8, 1934.

129.	♀	Taxidea taxus.	591-115-95-42.
130.	♂	Pipistrellus hesperus.	70-31-6-10. Wt. 3.1 gr.

Feathers
1934.

500 ft., Colorado R., 2 mi. N Nev.-
Calif. monument, Clark Co., Nev.
Feb. 8, 1934.

131. ♂ Ondatra. 489-216-70-17 Wt. 777.3 gr.
500 ft., Colorado R., ½ mi. N Nev. - Calif.
monument, Clark Co., Nev.
Feb. 8, 1934

132. ♀ Colaptes chrysoides mearnsi. Wt. 149.5 gr.
500 ft., Colorado R., 2 mi. N
Nev. - Calif. monument, Clark Co., Nev.
Feb. 9, 1934.

133. ♂ Ondatra. 464-213-66-16. Wt. 609.8 gr.
Feb. 10, 1934.

134. ♀ Urocyon cinereoargenteus. H. Snyder 930-405-132-76.
135. ♂ Mephitis. H. Snyder 568-255-67-27.
136. ♀ Ondatra. 437-195-65-16. Wt. 541 gr.
500 ft., Colorado R., ½ mi. N Nev. - Calif.
monument, Clark Co., Nev.
Feb. 10, 1934.

137. ♂ Trideprocne bicolor. Wt. 19.4 gr.
138. ♂ Trideprocne bicolor. Wt. 19.9 gr.
139. Skull only. Urocyon cinereoargenteus. ♂ picked up
Feb. 11, 1934

140. ♀ Otus asio. Wt. 104.7 gr.
141. ♂ Mephitis. 662-287-70-27.
142. ♂ Mephitis. 639-275-71-27.
Feb. 12, 1934.

143. ♂ Tadarida mexicana. 84-24-9-15. Wt. 9.7 gr.
~~Wt. 101.8 gr.~~

Feathers.

1934. 1900 ft., Hiko Spring, 8 mi. S.S.E. Dead Mt., Clark Co., Nev.

Feb. 12, 1934.

144. ♂ Ammospermophilus. 202-55-36-9. Wt. 101.8 gr.

Feb. 14, 1934.

145. ♀ Thomomys. 175-(40)-28-5. Wt. 87.8 gr.

2600 ft., 7 mi. S Dead Mt., Clark Co., Nev.

Feb. 14, 1934.

146. ♀ Thomomys. 189-55-28-6.

A. Feathers

Jan. 8, 1934.

500+ ft., Colorado R., 17 mi. S. E. Searchlight, Clark Co., Nevada.

Dr. Seth B. Benson, D. M. Hatfield, H. S. Fitch and I left Berkeley Jan. 6, to cover the region included as adjacent to the lower Colorado River north of Needles, Calif. and south of Brown's Ferry, in a collecting survey of the birds and mammals of the region, for the Museum of Vertebrate Zoology, of the University of California.

The first day's drive was uneventful, and the night was spent on the desert a few miles north of Mohave, Calif. The temperature was below 32° during the night.

Jan. 7 we proceeded to Ludlow, Calif., where a flat tire on our truck caused a few hours' delay. A new tire was purchased and we continued to near Danby, where a tire blowout gave more trouble. Needles, Calif., was reached late that evening, and the night was spent near there.

Jan. 8, 1934.
1¼ mi. S. E. Searchlight,
Clark Co., Nevada.
500 ft.+, Colorado R.

The morning of Jan. 8, final purchases were made in Needles; after which we left for Searchlight, Nevada. Arrived there in early afternoon and inquired for directions to Brown's Ferry on the Colorado R. At Brown's Ferry we made further inquiries as to the conditions lower down on the River.

We went to the Durkin Ranch, where inquiries were made, and proceeded down river thru the Updyke Ranch to the next ranch, (deserted) where we made camp at about 4:00 P.M. Traps were set as dinner was being prepared. The day was concluded with the writing of notes and in arranging equipment within the interior of the old cabin we had chosen as headquarters.

Jan. 9, 1934.

1¼ mi. S. E. Searchlight,
Clark Co., Nevada.
500 ft. +, Colorado R.

I spent the early morning hours cooking, washing breakfast dishes and in preliminary preparation of the evening meal.

After a cold lunch I left camp to hunt birds. Walking down-river thru arrowweed and mesquite, two or three hundred yards distant from the river, I saw a Towhee, but was unable to get a shot at it. Proceeding, I soon heard quail calling. Stealing toward the sound, I saw a quail sitting on a quail-brush bush (Atriplex lentiformis). I secured it with one shot of 16 gauge #10 shot. Other birds were heard retreating from the vicinity, and by crawling on my hands and knees thru arrowweed, I was enabled to see and shoot another quail (Lophortyx gambeli). This quail was shot with 410 ga. #10 shot.

Soon after this incident I ~~soon~~ saw a phainopepla in a mesquite tree. It seemed shy and flew as I approached. I later shot a song sparrow in a low mesquite bush. 410 ga.

Passerella iliaca
Melospiza melodia saltonis

Returning up-river along the very water's edge, I saw a cactus woodpecker (Dryobates scalaris cactophilus) in a willow tree and secured it with one shot of 16 ga. #10 shot.

Continuing, I noticed indications of

Jan. 9, 1934.

500+ ft., Colorado R., 1½ mi. S. E.
Searchlight, Clark Co., Nevada.

(cont.) beaver activities along the river bank. They consisted of cut willow shoots and tracks and scrapings in the mud.

Arrived in camp, I prepared one quail skin. Then taking 8 no. 2 traps I set them individually thru arrowweed and mesquite associations. Two traps were set in animal runways without bait, and six were baited with rat and mouse bodies.

I later cooked dinner, washed dishes and wrote notes.

Jan. 10, 1934.

My steel traps were visited the first thing in the morning. A fox had crossed over an unbaited runway set without springing the trap. At a trap where the quail body had been used as bait, some carnivore had torn the quail from the wire fastening without springing the trap. The next trap had been sprung, but the animal had jerked free. The skinning table carcasses apparently made poor bait. According to resident ranchers, fish are very difficult to catch at this season; summer being the best time for that purpose. Owing to the difficulty of obtaining fish, trap bait becomes quite a problem.

Breakfast of pancakes was prepared while

Jan. 10, 1934.
500+ ft., Colorado R., 1¼ mi. S.E.
Searchlight, Clark Co., Nevada.

(cont.) the other boys were visiting their traps.

Two bird skins (Lophortyx gambeli, Dryobates scalaris cactophilus) were prepared.

A bit of lunch was eaten and I left to set traps for beaver. Three no. 4 traps were set in water at the edge of the river bank. The traps were barely submerged, and freshly cut willow shoots two feet long were stuck in the mud in such a position that the animal would spring the trap in attempting to reach them.

On reaching camp I prepared dinner, washed dishes and finished the evening writing notes.

Jan. 11, 1934.

I arose at daylight and visited my beaver traps. They had not been disturbed. The river level had lowered about two inches during the night, exposing two of the traps. These I intended to re-set after preparing breakfast. I then returned to camp, while I shot a ~~verdin (Auriparus flaviceps)~~ verdin (Auriparus flaviceps) and a ruby crowned kinglet (Regulus calendula). The kinglet accompanied the verdin, chattering, and remained in the willow tree at the river-edge until I shot it.

Eight steel traps in the mesquite association were then visited. In one I found a house

500+ ft., Colorado R., 1¼ mi. S.E.
Searchlight, Clark Co., Nevada.

(cont.) cat. It had been attracted there by rat carcasses. I shot it in the chest with the 410 ga. It expired very quickly.

Breakfast cooked and dishes washed, I then went to shoot bait for my steel traps. I shot two ~~of~~ towhees (Pipilo aberti) at the outer edge of the quail brush association, and then continued down an old road which paralleled the river. The various associations at this point were considerably intermixed, due, I think, to the fact that here the river bank is uniformly high (4-6 ft.), and in places two to four hundred yards inland the elevation approximates that of the river.

At a wash two to three hundred yards from the river, seepage water showed at the surface of the earth. A deep water hole was also found near ~~hear~~ here; whether formed by human ~~f~~ agency or not, I was unable to determine. A flock of perhaps twenty quail (Lophortyx gambeli) were seen to fly from the wash, but I was unable to get a shot at any of them. On following the bed of the wash, I shot a pipit (Anthus pensilvanicus), which had alighted on the baked mud.

I returned to camp and worked the rest of the morning and afternoon in extricating the truck from where it was stuck in the sand.

Jan. 12, 1934.

500+ ft., Colorado R., 14 mi. S.E.
Searchlight, Clark Co., Nev.

Before breakfast I started around my traps, but on finding a grey fox in one, I took it to camp to be killed. My beaver traps were then visited. Nothing had disturbed them, so I returned to camp and breakfasted. After breakfast I washed the dishes, skinned the fox, and re-set and baited the eight traps near camp. I then had a bit of lunch with Fitch and Hatfield, who had returned from taking a bird census. They brought four quail, which, considering the dire need, I welcomed as trap bait!

The afternoon was spent setting out ten more steel traps (nos. 2 & 3). Some of them were baited with quail, as I shot two more quail on the way. Four quail were seen in the afternoon. The quail were used for bait unskinned, as they are much more attractive that way.

Cooking dinner, washing dishes and writing notes consumed my time for the remainder of the day.

Jan. 13, 1934.

I visited my three beaver traps early, but without success. Then I cooked breakfast and washed the dishes. On going around the ten traps I had set the day

500+ ft., Colorado R., 1¼ mi. S.E.
Searchlight, Clark Co., Nev.

(cont.) previous, I traveled southerly from camp down a road thru mesquite and arrowweed, which leads to what is known as the "Jay Ranch." The last three traps were set in a dry wash, which paralleled the river at a distance of a few hundred yards and is bordered with willow and cottonwood trees, and arrowweed. At places in the baked mud, domestic pigs have rooted out water holes. It was in the ~~exact~~ vicinity of this water that the three traps had been set. The traps and bait were as I had left them.

Walking along the wash, I shot a gnat-catcher (Polioptila), and later, a red-tailed hawk (Buteo borealis). Farther along I saw a road-runner (Geococcyx californianus), but was unable to approach within shotgun range. I later saw another one and shot at it as it darted thru the arrowweed, but missed.

Noting an old road that left the wash to the east, I followed it and was soon in a mesquite association which was not interspersed with arrowweed. The mesquite bordered a large, fenced field, in which I saw a jack-rabbit (Lepus californicus). I later saw some bluebirds and shot one from a mesquite at the edge of the field, but was

Jan. 13, 1934.

500+ ft., Colorado R., 14 mi. S.E.
Searchlight, Clark Co., Nevada.

(cont.) unable to find it. I then followed the road back to camp, shooting a marsh wren (Cistothorus palustris paludicola) on the way. I also saw a crissal thrasher (Toxostoma crissale) in mesquite association along the road. Abert towhees (Pipilo aberti) and the various sparrows were quite numerous, but I did not shoot any; as I had my steel traps as a paramount interest, and already had all the birds I could prepare.

After returning to camp, I took up my three beaver traps, prepared bird skins, and endeavored to set out the traps; but darkness prohibited setting the traps, and I had to leave them at the location I had selected.

Then, dinner, dishes and notes occupied the evening.

Jan. 14, 1934.

Dr. Benson having decided that we should move camp, the early morning hours were occupied with packing and loading equipment. I went up the river to get the traps I had taken there the previous night. On the way I shot a hermit thrush (Hylocichla guttata) at the edge of the water. While returning, I saw a cottontail (Sylvilagus auduboni), but had no chance for a shot.

I waited to see that the truck got out thru the sand successfully, and then started

Jan. 14, 1934.

(cont.) on the round of traps. At the first two traps some animal had eaten parts of the bait. It appeared to be the work of a weasel. I sensitized the settings and placed additional small traps in locations where a mammal of that size would be likely to step.

On the way to our new camping site, I attended to my other traps, but found nothing caught. When I arrived at the "Jap Ranch" the truck was there, so I helped to unload equipment and arrange camp. A Mr. Jess Thomas, Searchlight, Clark Co., Nev., rode up on horseback and acquainted us with certain characteristics of this locality. He also seemed concerned for the safety of his hogs and cattle, which roam the country. I believe we satisfied him as to our carefulness with firearms and responsibility as to our actions while on his property.

Mr. Thomas later presented me with some beaver castor, which is valuable as a trapping scent in trapping for beaver and other animals. He stated that the river, in the past decade, had flooded the "first bottom" to approximately the same extent each season. He also spoke of the illegal trapping for beaver on the river, and seemed to think that they were being depleted to a considerable

Jan. 14, 1934.
Jap. Ranch, 600+ ft., Colorado R., 14 mi.
S.E. Searchlight, Clark Co., Nev.

(cont.) extent. He stated that in the fields surrounding our headquarters there had been 90 acres of alfalfa, and that gophers (Thomomys) were known to have occurred here then. He spoke of ringtail cats (Bassariscus) as occurring on the Arizona side of the River, but not on the Nevada side. Most of his observations seemed sound and logical to me, but I doubted his assertion that ringtail cats quite frequently killed young pigs.

Jan. 15, 1934.
Cooked and washed dishes. When Dr. Benson and Fitch left for Needles in the truck, I rode up with them to the farther end of my trap-line. On leaving the car, I jumped a jack-rabbit (Lepus californicus) at the lower border of the creosote brush, shot at it and missed. At my first trap I found a grey fox (Urocyon cinereoargenteus) in the trap. I shot it with the .410 ga., and went to look at my other traps in the near vicinity. In one I found a bobcat (Lynx rufus). It was quite large, by comparison with thirty or more which I have observed in similar situations, and was almost lacking in black markings. I shot it with the .410 ga. It did not expire, so I shot it again from a distance of 15 feet.

a. Feathers. Jan. 15, 1934 16.

Jap. Ranch, 500+ ft., Colorado R., 1½ mi.
S. E. Searchlight, Clark Co., Nev.

(cont.) The cat gave a leap, immediately following the explosion and tore its foot free of the trap. In a few jumps it was out of site. Supposing it mortally wounded, I searched thru the dense tangle of dead and growing arrow-weed in the hope of finding it there. My final shot had been aimed directly for the heart, as was the first, and the cat had lain down as tho near death after the first shot. I am certain it could not have survived the two wounds long.

After a short search, I went to Mr. Updyke to enlist the aid of his dog in finding the supposedly dead cat. He and his dog both aided me in the search, but the dog finally ran afoul of another trap and I had to release him. That ended the dog's usefulness, so I reluctantly gave up the search to see to the remaining traps.

Where I had made a special setting of three traps for a coyote, I found the traps gone. The traps had been unfastened, set in a close triangle and a quail had been buried in the center with just a few feathers showing. Trap pans were covered with burlap and all covered with sand.

The arrowweed had been torn and bitten considerably at places where the animal

Jap. Ranch, 500+ ft., Colorado R., 14 mi.
S.E. Searchlight, Clark Co., Nev.

(cont.) had become entangled. The trail was easily followed. Within one hundred yards I found a coyote (Canis latrans) with the traps ~~cay~~ caught firmly in a mesquite. I shot it quickly and at close range with the .410, not wishing to have the bobcat episode repeated.

I carried the coyote and the fox to camp and put up the hermit thrush (Hylocichla guttata) and skinned the fox.

Hatfield and I were sitting down to dinner, when Dr. Benson and Fitch drove up. We all unloaded the truck and then had our dinner. After the meal, Benson located some bats in one of the outbuildings. We were actively engaged in capturing them for some time. Eleven specimens of leaf-nosed bats (Macrotus californicus) were secured. One was kept alive. Notes finished the evening.

Jan. 16, 1934.

Breakfast and dishes kept me occupied for the early morning hours. Then Dr. Benson and I visited my traps. Hogs had sprung two traps and eaten the baits. In another, a road-runner (Geococcyx) had been caught and it in turn had been eaten from the trap. All traps were re-set and baited. We then went to the Updyke Ranch for

"Jap. Ranch", 500+ ft., Colorado R., 14 mi. ~~S~~ E.
Searchlight, Clark Co., Nev.

(cont.) a drink of water. On our return I brought some of my traps in to camp, as I wished to re-set them in a new locality.

I skinned the coyote and prepared the skins for drying.

After lunch I set traps up thru the creosote brush and in the washes at the edge of the mesa. I discovered what I took to be a ring-tail den, from droppings at the entrance, and set one trap there. Other traps were set on my return thru the creosote brush.

After arriving at camp, I took the three beaver traps and went to the river. Darkness prevented the setting of them. On my return I shot a townsend solitaire (Myadestes townsendii).

I prepared dinner, washed dishes and wrote down my findings during the evening.

The bat which had been kept alive was marked and set free.

Jan. 17, 1934.

As soon as breakfast and the dishes were taken care of, I went up thru the creosote brush to my traps. None had been disturbed. On my return I saw a jack-rabbit (Lepus californicus). I cleaned the coyote and fox skulls, put up the townsend solitaire skin and took eight traps to set out. I set two

"Jap Ranch", 500+ ft., Colorado R., 14 mi.
S. E. Searchlight, Clark Co., Nev.

(cont.) no. 3 traps near badger workings, which were in mesquite. I set another no. 2 trap between there and the river. At the river I made beaver settings, using the castor scent (presented to me by Mr. Thomas) on a willow twig. Two more traps were set on the river bank for cats or foxes. I found another grey fox (Urocyon cinereo-argenteus) in one of my traps in mesquite - - arrowweed association. I shot it with the .410 aux. which killed it readily. Taking both fox and trap, I re-set the trap nearer to the position passed by, as I travelled my circular route. I set three more traps on my return to camp.

At camp, I skinned the fox and then shot a say phoebe (Sayornis saya) from a post.

For all general trapping with steel traps, I would recommend that victor no. 2 size be used. My reasons are these: One never knows what will be caught in a steel trap. The size stated is large enough for most animals that will come to a flesh bait. It may be sensitized in the setting, so that it will spring readily for a small mammal, such as a spotted skunk or weasel. Were a smaller traps set for these animals, the trap might be sprung by a bobcat or other large mammal. It probably would escape - as in

"Jap. Ranch", 500+ ft., Colorado R., 14 mi. S.E.
Searchlight, Clark Co., Nevada.

the case of my own recent experience - and a valuable specimen be lost. Of course, where one is trapping specifically for a certain mammal, the traps commonly recommended for that species should be used. But in trapping for small mammals with baits, I do not believe a trap smaller than the no. 2 should be used.

I finished the day by cooking, dishwashing and note writing.

Since writing the foregoing, the entire party went out to hunt owls. Mr. Fitch imitated a rabbit in distress so successfully, that a great horned owl (Bubo virginianus) was attracted to the sound and shot by him. He later called up another one, which was shot by Mr. Hatfield. After further and unsuccessful attempts, we returned to camp and retired for the night.

Jan. 18, 1934.

I cooked breakfast and washed the dishes, before starting out upon my trap line. The first three traps were visited without the occurrence of any unusual incident.

As I walked up the dry wash, a red-tailed hawk (Buteo borealis) flew near by and I shot it with .16 ga. no. 6 shot.

My traps on the river were as I had left them. Near the river, in a willow tree, I saw and shot a sandwich sparrow ~~(Conor~~ (Ammodramus

Jap. Ranch, 500+ ft., Colorado R., 1½ mi.
S. E. Searchlight, Clark Co., Nev.

(cont.) sandwichensis). At my last trap, near a mesquite tree, at the upper edge of that association, I found a badger (Taxidea taxus) in one of my no. 3 traps. It had dug a hole about one foot deep, by 3 ft. in diameter. Not wishing to shoot it with the shotgun, because of possible damage to the skin, I went on to camp. There I improvised a spear by affixing my scalpel to a broom handle. I returned to the badger with Mr. Hatfield and observed its reactions to human presence. As it was approached, it crouched low in the excavation, apparently trying to hide. When disturbed, it became belligerent and emitted hissing snarls. I stabbed it in the heart and it quickly died.

After my return to camp, I cared for the skin and skull. I then visited my traps up thru the creosote brush and in the washes at the edge of the mesa. As I returned, I found an antelope ground squirrel (Ammospermophilus leucurus) in a trap in the creosote brush, where a quail had been used for bait. It had eaten some of the quail before springing the trap.

I made tentative arrangements with Mr. Thomas for the rent of a saddle horse for the following day.

I cooked dinner, washed dishes and wrote notes.

Jap. Ranch, 500+ ft., Colorado R., 1¼ mi.
S. E. Searchlight, Clark Co., Nev.

My start upon the day's work of collecting was, as usual, delayed by the preparation of breakfast and the washing of dishes.

I then rode to the Thomas Ranch in the truck with Mr. Hatfield and saddled the horse which had been selected for me. My traps in and above the creosote association were visited on the way back to our ~~camp~~. camp. No specimens were secured.

After I had returned to camp, I rode the horse out thru the "first bottom" to gather up all my traps in that locality; including the three no. 4 traps set for beaver. In a trap near a water hole, I found a skunk (Mephitis mephitis). I drowned it in the water, after it had discharged some scent, and tied it on the saddle with my traps.

I returned to camp with all my traps from the "first bottom" and skinned the skunk.

On the morning ride, I saw a red-tailed hawk (Buteo borealis), a road-runner (Geococcyx) and I heard quail of ~~one~~ an undetermined number in quail-brush.

After lunch, I loaded 16 traps and some bait upon the horse and rode down the river about 4 miles, to a point below the Thomas Ranch. There I set out the traps along the road. I saw a little brown bat (Myotis) flying at the edge of the river. As I had

Jan. 19, 1934.

Jap. Ranch, 500+ ft., Colorado R., 14 mi.
S. E. Searchlight, Clark Co., Nev.

(cont.) carried no shotgun on the horse, I was unable to shoot it. I also saw a hawk, which may have been a cooper hawk; but I am not sure of the identification.

I rode back to camp hurriedly, cooked dinner, washed the dishes and wrote notes.

Jan. 20, 1934.

I cooked breakfast, washed the dishes and prepared to go to my traps in the truck with Dr. Benson.

When we arrived at the Thomas Ranch, we returned the saddle and bridle and Dr. Benson paid for the rent of the horse.

We found nothing in my traps. Two men were camped at the end of the road. We questioned them as to beaver ~~sing~~ signs near their camp, and they stated that they had seen no indications of beaver there, but had noticed recent signs of beaver at their previous camp, some 10 miles down the river.

No noteworthy incident occurred as we returned to camp.

I fleshed the skunk skin and visited the 6 traps in the wash devoluing from the mesa.

The remainder of the afternoon and evening was spent in doing an unusual amount of cooking, camp work and then my regular notes.

Jap. Ranch, 500+ ft., Colorado R., 1¼ mi.
& E. Searchlight, Clark Co., Nev.

I started the day by cooking breakfast and washing and wiping the dishes. I then went to my traps up in the rocky washes. I had caught a skunk in one of them. It had chewed off the toes of the imprisoned foot. I shot the skunk (Mephitis mephitis) and waited for it to die. I had Dr. Benson's .22 aux. cartridge, in which I used shot shells. The shot was not effective enough to cause the animal's death, so I shot it again from a distance of not over one foot. That failing to kill the skunk, I ~~set~~ resorted to rocks; with which I finally broke its back.

I felt very keenly the need of a small calibre pistol, during this and other similar incidents.

I returned to camp, skinned the skunk and had something to eat.

After lunch I went out with Mr. Fitch to shoot birds. We saw, and Fitch shot at a road-runner, in the dry wash between camp and the river. Later, in the same wash, we saw a pipit (Anthus pensilvanicus) and a robin (Turdus migratorius propinquus). They were both quite tame. that fact being quite an unusual characteristic among the birds here.

We startled a great blue heron (Ardea herodias) from a pool, which was isolated by a large sandbar. Far out on the river we

Jap. Ranch, 500+ ft., Colorado R., 1¼ mi.
~~X~~. E. Searchlight, Clark Co., Nev.

(cont.) saw a pelican (Pelicanus erythrorhynchos).
As we returned, Fitch killed a house wren (Troglodytes). We saw a flicker, numerous mountain bluebirds, about a dozen phainopepla and heard quail calling.

After I returned to camp, I ~~skinned~~ fleshed the skunk skin, cooked dinner, and washed and wiped the dishes.

Earlier in the day I shot a western robin (Turdus migratorius propinquus) on my way back to camp, after collecting all my traps below the Thomas Ranch. I had taken the car for this purpose, and shot the robin from a mesquite, as I sat in the car.

Jan. 22, 1934.

Colorado R., 31 mi. N., 2 ½ mi. W Camp Mohave, Mohave Co., Arizona.

I cooked breakfast and cleaned and packed the cooking equipment. Then we all loaded the truck and departed from the Jap. Ranch at about 10:00 a.m. We drove to Searchlight, got our mail, wrote letters, had lunch and made ready to ~~loo~~ leave for the Arizona side of the Colorado R. We negotiated the crossing successfully on the suspension ferry.

After we had crossed, the truck became stuck in the sand. We extricated it without unusual difficulty and continued on our way.

Jan. 22, 1934.

Colorado R., 31 mi. N., 2½ mi. W. Camp Mohave, Mohave Co., Arizona.

(cont.) When we became stopped by the sand a second time, about two miles from the ferry, Dr. Benson decided to pitch camp at the spot. We accordingly unloaded the equipment, erected the tent, and went to look at <u>beaver</u> workings, which Dr. Benson had located when we were in camp across the river.

The <u>beaver</u> "sign" was plentiful, and in some instances, recent. The bank at this place was some five feet high, the river current swift and deep, and willow saplings grew in a thicket, close ~~to~~ to the river's edge. At places in the steep bank, it ~~could~~ could be plainly seen where <u>beaver</u> had dragged cuttings and slid them into the water. The cut stumps were up to three inches in diameter. From the manner in which the cutting had progressed from the downstream end of the thicket to the upper, it seemed as tho the <u>beaver</u> den must be below the thicket. Appearances indicated the den might be in under the roots of a mesquite which projected over the edge of the bank. The cutting of the willows had been done systematically; for the downstream end of the thicket had been completely raged, while the upper end was entirely untouched.

I set two number four traps at slide

Jan. 22, 1934

Colorado R., 31 mi. N, 2½ mi. W
Camp Mohave, Mohave Co., Arizona.

(cont.) which appeared to have been recently used. The traps were both arranged to drown the animal, if caught.

Numerous <u>coyote</u> and <u>cottontail</u> (*Sylvilagus auduboni*) tracks were seen near the river.

I retired to camp as dusk approached and cooked dinner and washed the dishes.

Jan. 23, 1934.

I arose at daylight and with Dr. Benson went to look at the beaver traps. I was rather disappointed to find that no <u>beaver</u> had visited them. We returned to camp and I cooked breakfast and washed the dishes.

I took three no. 3 traps to make a setting for <u>coyotes</u> and went down to the river. In the interval between my first and second visits to the river, the banks had been undermined to the extent that a considerable amount of earth had fallen upon my traps. I therfore moved them to better locations.

I made the <u>coyote</u> setting, and then walked south along the river, looking for <u>birds</u>. I saw a <u>cactus woodpecker</u>, seven <u>sage sparrows</u> and heard a <u>wren</u>.

After I had returned to camp and had lunch, the entire party commenced the task of getting the truck out of the sand

Colorado R., 31 mi. N, 2½ mi. W Camp
Mohave, Mohave Co., Arizona.

(cont.) and back upon the road. This labor consumed the entire afternoon. After our efforts had been attended by success, I cooked dinner and washed the dishes. The late evening was spent in writing notes.

Jan. 24, 1934.

As soon as I had completed my work attending the preparation of breakfast, I went to see about my traps. One beaver trap had been sprung and pulled out to the end of the "drowning wire". I presume that the trap had caught the animal by the belly, and that it had easily become freed. Considerable tension had been placed upon the fastening, but not enough to have freed an animal's foot.

Another trap had been rendered ineffective by a cave-in of the bank. The third trap had not been disturbed. I re-set the one trap and moved and re-set the other one.

My coyote setting had not been disturbed.

I returned to camp, took four no. 2 traps and what few mice and rat bodies there were, for bait, and set the traps out south of camp.

The weather was adverse for bird hunting. An overcast sky and a cold north wind kept the birds in dense cover. During a walk of 3 to 4 miles, I saw only an Albert Towhee.

Jan. 24, 1934.

Colorado R., 31 mi. N., 2½ mi. NW Camp Mohave, Mohave Co., Arizona.

(cont.) In the afternoon I took 5 more traps and went to look for muskrat "sign". Heretofore, I had seen no indications of muskrats along the river banks. I saw nothing this day which proclaimed the presence of muskrats, but set three no. 0 traps, using potato for bait. I set the other two traps as I returned to camp.

Since the establishment of this camp, lack of bait has been a hindrance to effective trapping for the carnivores.

During the evening, I cooked dinner, washed dishes and wrote notes.

25,
Jan. ~~24~~, 1934.

Colorado R., ½ mi. N. Nevada - Calif. Monument, Clark Co., Nev.

This morning I gathered in all my traps. None of them had been disturbed. I saw nothing to indicate that beavers had been active in the vicinity of my traps.

The party partook of a quick breakfast, and then we all packed and loaded the equipment. We received our mail and had lunch in Searchlight.

The trip to ~~Ft~~ Needles was made without any unusual incident. Dr. Benson conducted certain affairs, I purchased some

Jan. 24, 1934.

Colorado R., ½ mi. N Nevada-Calif. Monument, Clark Co., Nev.

(cont.) groceries and we dined, while at Needles.

We slept out on the desert a few miles north of Needles.

Jan. 26, 1934.

We arose early and drove north along the river road to a camp of road workers. The greater part of the day was consumed in a search for a suitable camp site. We conversed with a fur trapper on various subjects. He gave his name as Calvin Bradshaw, Searchlight, Nev. He conducted trapping operations between the road camp and Searchlight, at such times as he was not employed at road work. He stated that he had never caught Bassariscus between the Colorado R. and Searchlight, but had taken them a short distance west of Searchlight.

I obtained some trapping scent of his composition, and in return, presented him with some beaver castor scent.

Dr. Benson requested him to save the carcasses of mammals he might catch.

We camped a few miles north of the Calif., Nev. state line, on a bluff just above a willow-grown slough.

I arranged the food and utensils in the tent and cooked dinner. The evening was spent writing notes.

Jan. 27, 1934.

Colorado R. ½ mi. N Nevada - Calif. Monument, Clark Co., Nev.

In the early morning hours, I cooked, washed the dishes and cut wood for the stove.

I then took nine large traps and set them on a route which I traveled to the west of camp. Seven of the traps were set in a dry wash. Two were set in a canyon at the foot of the mountains. I used scent at all of the settings, placing a small amount upon rat carcasses. During the walk, I saw a hawk (probably Circus hudsonius) and a small bird, which I was unable to identify. I also saw two lizards (Uta).

At camp, after lunch, we all saw a few ducks on the lagoon below camps. They were identified as green-winged teal (Nettion carolinense).

I took eleven more traps and set them along the edge of the slough, as I progressed in a southerly direction from camp. At these settings I also used scent in combination with some canned sardines, which had been presented to me by Mr. Bradshaw. I searched for indications of muskrats, but found no tracks, nor droppings, although I examined several logs in the slough for the latter. During the walk I saw

Jan. 27, 1934.

Colorado R., ½ mi. N. Nev. – Calif.
Monument, Clark Co., Nev.

(cont.) a great variety of birds. Some I recognized were: Nettion carolinense, approx. 20; Pyrocephalus rubinus mexicanus, three; Fulica americana, approx 12; Wrens, four; Flickers, three; Turdus migratorius propinquus, one.

After my return to camp, I cut wood, cooked dinner, washed the dishes and wrote notes.

Jan. 28, 1934.

The preparation of breakfast and dishes taken care of, I walked around my trap line, which extends west some three miles. The ~~easternmost~~ westernmost traps are about one mile across the Calif. state line.

But one trap had been disturbed. The bait had been taken from one trap; probably by a coyote.

On the walk, I saw four cage sparrows.

My traps near the slough were next visited. None had been disturbed.

I prepared a lunch and cut some stove wood. Later as I walked along the edge of the slough, I shot a black phoebe. It was difficult to find an opportunity to shoot it above the land, so that it would not fall in the water, but I finally did so. Birds seen during the walk were: Two robins, four flickers, one kinglet, approx. 30 green-winged

Colorado R., ½ mi. N Nevada - Calif. Monument, Clark Co., Nevada.

Jan. 28, 1934.

(cont.) teal, two woodpeckers, one road-runner, one say phoebe, two coots, one blue heron and one shrike.

I put up the black phoebe skin and went for another short walk. I saw a gopher throwing dirt from its burrow. It exposed its entire body above the surface of the earth each time earth was pushed forth. The fore part of the head was used to push some of the rocks. One rock was larger than a hen's egg. I retreated as far as possible and shot it with the .410. It was too badly damaged to prove valuable as a specimen, so I used it for trap bait.

I returned to camp, cut wood, cooked dinner and washed the dishes.

Jan. 29, 1934.

Breakfast and dishes occupied the early morning hours. I then went around my trap line west of camp. Nothing was found in the traps. I took up the three traps at the foot of the mountains, in California, and re-set them in the catclaw association, in Nevada. In that association, I saw one sparrow hawk. Closer to camp, in catclaw, I shot a sage thrasher and two verdins.

I visited my other traps along the edge of the slough. Nothing had been caught.

Colorado R., ½ N Nevada – Calif.
monument, Clark Co., Nev.

Jan. 29, 1934.

(cont.) After I returned to camp, Dr. Benson and I left in the truck to interview Mr. Bradshaw and see if he had saved any skulls for us. He told us of a kit fox skull at his camp, and a skunk in a trap near there. We drove to his camp and got the skull, and later, found and killed the skunk. Bradshaw said he had left the skunk dying from a blow with a rock, the previous night. It was still very much alive when we found it, and survived 3 shots from the .22 aux. Benson finally broke its back. We then drove back to camp.

I skinned the skunk, cared for the skull and took four traps to set out. I waded across the slough to the marshy island between our camp and the river, and set the four traps in the willow association.

A dozen or more robins were seen in the willows. I heard three horned owls before the sun had set. A few coots were seen as I returned to camp.

I cooked dinner and washed and wiped the dishes.

The skunk and skull of Vulpes macrotis, nos. 105–106 were obtained, 2 mi. W Colorado R., 6 mi. N Nevada-Calif. monument, Clark Co., Nev.

Colorado R., ½ mi. N. Nevada - Calif. monument, Clark Co., Nev.

Jan. 30, 1934.

I cooked breakfast and cleaned the dishes. My traps were all visited without obtaining any specimens.

I then put up the skin of Creoscoptes montanus.

I took eleven steel traps across the slough, and set them in the willow association on the island east of camp. Bacon rind and ~~Dy~~ Dipodomys were used as bait.

During my walk, I saw Procyon tracks, Canis latrans tracks, Mephitis tracks and the tracks of Lynx rufus.

Birds seen were: Approx. 20 robins, one sparrow hawk, approx. 12 coots, 5 flickers, 1 blue heron, 5 ~~pp~~ pipits and several unrecognized birds.

I heard a horned owl hoot at 3:30 P.M. in the willow association.

When I returned to camp, I found that Dr. Hall and Orr had arrived.

I cooked dinner, ~~so~~ washed the dishes and wrote my notes.

Jan. 31, 1934.

I cooked breakfast and washed and wiped the dishes. Then I visited all my traps across the slough in the willow association. Results were negative. After visiting the traps I shot birds. One gila woodpecker,

Colorado R., ½ mi. N Nevada, Calif. monument, Clark Co., Nev.

Jan. 31, 1934.

(cont.) one house wren, one hermit thrush and one Audubon warbler were secured in the willow association.

Birds seen on the walk were: 4 swallows, flying north, 1 blue heron, 5 mallard ducks, 2 flickers, 1 junco, 2 cactus woodpeckers, 3 kinglets and numerous sparrows.

My traps along the slough were taken up and two were re-set at two kit fox dens, which had been pointed out to me by an Indian, Mr. Snyder. He also gave me some trapping scent.

I visited my traps in the wash association and used some of the scent at the settings. I saw a cottontail in a wash near camp, but failed to secure a shot at it.

I cooked dinner, put up the skin of the gila woodpecker and wrote notes.

~~Jan~~ Feb. 1, 1934.

After breakfast, Dr. Hall and I drove north two miles to a point in the creosote association where I had set two traps for kit foxes. Foxes had evidently been in and out of the dens, but no traps were sprung.

We next drove along the slough, found muskrat sign, and set some traps under water at the edge of the bank. Dr. Hall

Feb. 1, 1934.

(cont.) shot a mockingbird in a mesquite tree. He then drove me up the wash near camp, wherein some of my traps were set. I walked back to camp, visiting other traps on the way.

I prepared lunch, and later walked around my traps across the slough. I took with me four traps and a skunk carcass for bait. These I set in likely locations, squeezing skunk scent from the glands at each setting. No specimens were secured from the traps. An abert towhee had been caught in one trap. Tracks of a skunk showed in the sand near the trap, indicating that the skunk had pulled both bird and traps the length of the chain. The bird had not been eaten, however.

I returned to camp, put up the hermit thrush skin and cooked dinner. After dinner, I put up the skin of the audubon warbler and the skeleton of the house wren.

Feb. 2, 1934.

In the company of Dr. Hall, I visited seven steel traps in the willow association. No specimens were secured from the traps. Four of them were taken up. At the river's edge we saw a blue heron, which had been alarmed by our approach and had taken flight. We parted here, Dr. Hall travelling north, while I went south to

(cont.) set to my other traps. No specimens were secured from the remaining traps. I re-set the four traps, which I had taken up, using gopher bodies for bait.

I shot two gila woodpeckers from a willow tree. One of them had bled profusely from its broken wing. Seeing that it would make a poor specimen, I let it utter its ~~screch~~ screech of distress, while I waited in the brush, hoping a hawk would be attracted. Soon I heard the swish of wings and turned to see a small hawk alight a few feet behind me. As I rose and turned around, it flew up and over my position. I shot at it and crippled it, but it flew away with one leg dangling. It was not identified.

I later shot a red-naped sapsucker from a cottonwood tree. Then I returned to camp.

Dr. Hall and I drove to the traps at the kit fox den. On the way, I saw and shot a blue heron. It was standing in the slough among tules. At the first shot, it took to wing, but was brought down with the second. I swam out in the slough and brought it to shore. No specimens were secured from the traps. They were taken up.

The remainder of the day was spent at camp chores.

Feathers. 1934. Colorado R., ½ mi. N Nev. – Calif. 39. monument, Clark Co., Nev.

Feb. 3, 1934.

My traps across the slough were visited after the departure of Drs. Benson and Hall. None of the traps were disturbed. I set out seven more traps in the willow association, using two coots for bait.

I returned to camp and put up the skin of the blue heron. That task required five hours of my time. During that period, Mr. George Snyder brought in a beaver, which he had caught at the river's edge, west of camp ¾ of a mile. He had used a boat to set his traps. He stated that beaver are difficult to catch, when traps are set from the bank; the human scent which is left by the trapper, causing the animal to take fright, as it approaches the bank.

I accompanied Snyder north along the slough one mile, to a place where muskrat traps had been set by Dr. Hall and myself. One muskrat was found in the traps set by Dr. Hall. The other two traps had not been disturbed. I set one more trap at this place, and three at other places near there. The muskrat dens were observed as generally being located in the banks under the protection of a mesquite tree, or dense growth of arrowweed. The den entrances were four to six inches below the surface of the water.

Colorado R., ½ mi. N. Nev.—
Calif. monument, Clark Co., Nev.
Feb. 3, 1934.

(cont.) The recent presence of muskrats was shown by freshly cut sections of tules floating in the water. The pieces were one ~~half~~ to two feet in ~~length.~~ length. ~~Some~~ of the den entrances were located by the cut tules, which had been dragged into them. One trap was set upon a foundation of tules thus situated. No dens or "slides" were seen in exposed places upon the banks of the slough.

I returned to camp and attended to my duties there.

Feb. 4, 1934.

The morning and part of the afternoon was spent skinning the beaver, brought in by Mr. Snyder the previous day.

In the afternoon Snyder brought in another beaver and a badger which he had caught. The beaver was caught in a trap set from a boat, and the badger in an unbaited trap at a den entrance.

I skinned the badger, and then went to look at my muskrat traps. One female had been caught in a trap set at the foot of a "slide". The muskrat had drowned. None of the other traps had been disturbed.

While near one of my traps at the edge of the slough, I heard a splash out in the tules. I watched the surface of the water in all

Feb. 4, 1934.

(cont.) directions. Soon I saw a muskrat's head appear, about fifty feet from where it had dived. I ran around a clump of arrowweed, came within range and shot the muskrat. It dived again and came up near shore. I shot it again. Darkness was approaching, which made it difficult to tell whether the animal was in the water near the other shore. I went to a place where I could get across the slough, walked back and found the muskrat dead.

Camp was reached after dark.

Feb. 5, 1934.

In the morning, I put up a muskrat skin ~~and skinned the beaver~~.

I visited all my traps on the island without taking any specimens. After I reached camp, I made stretching-boards for the large skins and skinned out the second beaver.

Late in the afternoon, I went to my muskrat traps, but secured nothing. On my way home, at dusk, I called a horned owl by ~~screaching imitating the screech~~ imitating the screech of a rabbit, with my fingers and lips. It alighted in a tree close by, and I shot it with the 410. When it flew, I shot it again with 16ga. and it fell with a crash in dense arrowweed and mesquite. As it was near

Feb. 5, 1934.

(cont.) darkness, and I had no light, I put off hunting for it until the following morning.

I saw a very large bat, but was unable to get a shot at it.

I reached camp after dark, skinned out a muskrat and wrote notes.

Feb. 6, 1934.

In the morning I put up two muskrat skins.

From camp, I saw a flicker, which I shot at and wounded, but did not secure. It was in a willow tree at the edge of the slough.

I took six more muskrat traps and went north along the slough, to where my muskrat traps were set. In one trap, I found a drowned muskrat. I changed the location of two traps to the opposite side of the slough from where they had been, and hunted there for favorable locations for my additional traps. Not finding good "sign", I did not set more traps.

I searched for the owl I had shot the previous night, but without success.

Birds seen along the slough were: One Lophortyx gambeli; One Ardea herodias; One Sayornis sayus; One Sayornis nigricans; Six Oxyechus vociferus; one Pyrocephalus rubinus mexicanus

Feb. 6, 1934.

(cont.) When I returned to camp, Orr and Fitch had left to spend the night at Hiko Springs, north some seventeen miles from camp. I found that Mr. Snyder had brought in two skunks and a grey fox.

Feb. 7, 1934.

In the morning, I put up the muskrat skin. When Orr and Fitch returned, I got them some breakfast. I then did some additional work on the beaver skins.

In the afternoon, I skinned the grey fox and the two skunks. It became dark by the time I had finished skinning; so I was not able to visit any of my steel traps.

A horned owl was seen from camp. It flew into a willow tree by the slough. Orr and I tried to get a shot at it, but were unsuccessful.

Birds seen from camp were: One Ardea herodias; one Colaptes cafer and a large flock of ducks (perhaps fifty).

Feb. 8, 1934.

The fox and skunk skins were taken care of in the early morning. I then visited my traps ~~of~~ across the slough. In one trap a house cat was caught. I killed it, intending to preserve it as a specimen. It appeared to have some of the characteristics of Lynx rufus.

Colorado R., ½ mi. N Nev.— Calif. monument, Clark Co., Nev. 44.

Feb. 8, 1934.

(cont.) In this specimen, the color and markings of the pelage indicate a possible cross of Felis domesticus with Lynx rufus. The tail of the cat was short, for Felis domesticus; but not as short as some tails on wild house cats which have come to my notice.

At another trap I had caught a skunk. It was killed with a stick, after surviving a shot from the .410 ga. From tracks in the sand, I concluded that another skunk had carried nearby for some time. It had apparently rolled on the sand at places near the trapped skunk. I re-set the traps.

On my way back to camp I shot a Colaptes chrysoides mearnsi from a willow tree. Several Colaptes cafer were seen in the willow association.

I returned to camp, skinned the skunk and house cat and a badger, which Mr. Snyder brought in.

In the late afternoon, I visited my muskrat traps. I secured one muskrat from a trap, which had been set under water on a slanting log. I met Orr at this place, and went with him to hunt for some Red-winged blackbirds, which we had heard. We found them far out in tules. Efforts to make them fly proved futile; as they had settled

500 ft., Colorado R., ½ mi. N Nev.-Calif. monument, Clark Co., Nev.

Feb. 8, 1934.

(cont.) for the night. As we returned to camp I shot a Pipistrellus hesperus.

Feb. 9, 1934.

In the morning I finished caring for the cat, badger and skunk skins and skulls. The bat and gilded flicker were next put up. The stomachs of all the large mammals, except the badger, were found to be empty. It was found to contain unidentifid insects.

Mr. Orr brought in another muskrat from one of my traps. It was the second taken at that place in the one traps. I skinned it and the muskrat taken the previous day.

At dusk, Orr and I went down to the edge of the slough to hunt for bats. The wind had blown hard all day, which may have been the reason the bats were not as numerous as usual. Only four were seen. None were secured. A night heron (Nycticorax nycticorax naevius) flew near and was brought down by Orr. A few snipe were seen and heard. One was shot at, but was not secured.

Feb. 10, 1934.

Orr and I went to ~~M~~ Needles in the morning. On the way back, we stopped to see Wm. Pugh, a muskrat trapper, living in Calif. between Needles and our camp. He was requested to obtain us a beaver, in the flesh; which, he seemed to

500 ft., Colorado R., ½ mi. N Nev.-Calif. monument, Clark Co., Nev.

Feb. 10, 1934.

(cont.) think, he could easily accomplish. He stated that marsh hawks (Circus hudsonius) ate a great many muskrats from his traps. As many as six muskrats a day had been lost to marsh hawks, he claimed.

After we returned to camp, I stated out to see to my muskrat traps. In the flat below camp, I stopped to shoot swallows. Twenty or more were circling above the flat and over the slough, altho it was quite windy. I shot two (Tridoprocne bicolor) and continued on my way.

One muskrat was taken from a trap. Another trap had been sprung. I returned to camp with Snyder, who had a skunk and a grey fox. I urged him to try to catch a bobcat or a kit fox.

Specimens requiring my care have been coming in so fast that I have had no opportunity to set my steel traps farther from camp. I believe a greater catch would result, if I were to do so.

Feb. 11, 1934.

The two swallows were put up, in the morning. I then skinned the fox and skunk, which Snyder had caught.

Late in the afternoon, I went to my traps in the "first bottom", opposite camp. Two

500 ft., Colorado R., ½ mi. N Nev.–
Calif. monument, Clark Co., Nev.

Feb. 11, 1934.

(cont.) Mephitis were taken from traps in the willow-association. One was shot. The other was killed with a club.

In another trap, at the edge of the river, under willow trees, an Otus asio was found, dead. The trap had been baited with meat.

I returned to camp about as darkness settled. In the evening, I put up the ~~rocd~~ screech owl, and the muskrat was skinned.

Feb. 12, 1934.

Early in the morning, I went with Orr and Hatfield, to visit their gopher traps, near Hiko Spring. Approximately fifteen Ammospermophilus were seen. I shot one. Their metropolis was in the rocky hills association.

After we had returned to camp, I put up the muskrat skin, and skinned out the two skunks.

No specimens were taken from the muskrat traps. I took them all up and brought them to camp.

While dinner was cooking, I shot a free-tailed bat (Tadarida mexicana). Several bats were flying above the grassy flat, just below camp.

500 ft., Colorado R., ½ mi. N Nev.-Calif. monument, Clark Co., Nev.

Feb. 13, 1934.

I went out in the "first bottom" and gathered up all the steel traps. Two snipe were seen in tule association. One Sayornis sayus and one Hylocichla guttata were seen in the willow association.

I took the car to Needles, had it serviced and purchased groceries. On my return trip, I stopped to see Mr. Pugh, relative to the purchase of a beaver. He had not caught one, but thought he might by the next day.

Fitch and I drove 15 mi. north to Hiko Spring, to attend to gopher traps set there by Orr and Hatfield. Three gophers had been caught. Seven settings were taken up and re-set in different locations.

A pipistrelle was seen flying at 4:15 P. M. I shot it.

We returned to camp after dark.

Feb. 14, 1934.

Fitch and I started at daylight to visit the gopher traps. Along the route, Fitch shot an Ammospermophilus. Only one gopher was taken. Several traps were re-set at new places.

After we had returned to camp, I put up the gopher skin.

We all packed equipment, and prepared to leave camp. The truck was then loaded. We proceeded on the road to Searchlight,

Feathers.

Jan. 9, 1934.

500+ ft., Colorado R., 14 mi. S.E. Searchlight, Clark Co., Nevada.

Canis latrans.

Numerous coyote tracks were seen in the mud at the river's edge, where recently made beaver tracks showed. It appeared as tho the coyote had been investigating the beaver scent.

Jan. 15, 1934.

I caught a coyote today in a setting I had made especially for that species. As the setting is described in my "running account", I will just state that no coyotes have visited my ordinary trap settings. in fact, it has been my experience that they are seldom caught in a steel trap when bait is prominently displayed.

This coyote showed no disposition to attack me, even when closely approached. It merely tried to escape. Stomach contents: Mesquite beans.

Jan. 20, 1934.

Coyotes serenaded us this evening. There were two barking, from points a half mile distant from one another.

Feathers

Jan. 15, 1934.

500+ ft., Colorado R., 1¼ mi. S.E.
Searchlight, Clark Co., Nevada.

Lynx rufus.

This morning I found a bobcat in a victor no. 1½ trap. I shot it twice with the .410 aux. On shooting it the second time, it leaped the length of the trap chain and jerked free. As it was a very large bobcat, the trap was inadequate to hold the animal. Double spring no. 2 trap should have been used. The trapper also should have a small calibre pistol with which to kill trapped animals.

Very few tracks of bobcats have been seen in this locality.

Feathers.

Jan. 10, 1934.
500+ ft., Colorado R., 1/4 mi. N. E.
Searchlight, Clark Co., Nevada.

Castor canadensis.

Beaver tracks and cuttings were noticed at the river-edge in the mud, at a place where the bank was about six feet high. The cuttings were willow shoots. Some had the basal end embedded in the mud, while others were lying in the water. The river flow was comparatively swift at this point, and the channel deep, with precipitous banks.

Three no. 4 steel traps were set at this place; willow shoots being used for bait.

Jan. 23, 1934.
Colorado R., 31 mi. N, 2 1/2 mi. W Camp Mohave, Mohave Co., Arizona.

I set three no. 4 traps here for beaver. The animals seem to have been here recently, but I smoothed out the dust at the tops of numerous slides, in order to determine whether there are any beaver here at the present time.

Feathers

Jan. 19, 1934.

500+ ft., Colorado R., 14 mi. ~~S.~~ E.
Searchlight, Clark Co., Nevada.

Mephitis mephitis.

I caught a female skunk in arrowweed association near here today. It's stomach was full of Dipodomys that I had used for bait. It was not fat. Hind feet wanting.

Jan. 21, 1934.

A male skunk was caught in a trap, set at the edge of the mesa, in a burrow. The skunk was quite fat. It's stomach contained merely the rats I had used for bait. Between the skin and flesh of the neck, were numerous worms. They were about 12 inches long, and about the thickness of a horsehair.

Feathers

Jan. 10, 1934.
500+ft., Colorado R., 14 mi. ~~S.~~ E.
Searchlight, Clark Co., Nevada.

Urocyon cinereoargenteus.

A fox had stepped on both sides of a steel trap I had set in the dust of a runway in the arrowweed association. It had apparently consciously avoided the trap.

Jan. 12, 1934.

This morning a grey fox was found in one of my traps. I carried it and trap to camp in order to kill it humanely and with as little damage to the fur as possible. It was shy and furtive, but offered no resistance to my touch. Dr. Benson shot it in the heart with .22 calibre bird shot and it expired quickly. The stomach was found to be empty, but a specimen of feces was saved. It had, in the few hours entrapped, chewed the greater part of its front foot away. Mesquite thorns were found under its skin, but did not penetrate the flesh.

Jan. 15, 1934.

Another fox was caught today. It was taken in a trap set in a runway, without bait. The stomach contained screw beans.

Jan. 17, 1934.

A grey fox was caught in arrowweed association, in a trap baited with carcasses from the skinning table. Its skin was affected with follicular mange.

Feathers

Jan. 18, 1934.
Jap. Ranch, 500± ft., Colorado R., 14 mi.
S. E. Searchlight, Clark Co., Nev.

Taxidea taxus.

A badger was caught at the upper edge of the mesquite association. The trap had been set at the edge of a mesquite tree and baited with Dipodomys bodies.

The badger's stomach was full of the bait that had been used. It seemed probable that some of the bait had been eaten after the badger was caught. The only sound it uttered was a hissing ~~snarl~~ snarl, when molested.

Section 3

Mendocino County
1934

Feathers, Dc

Feathers.
1934.

Berkeley, California.

Feb. 14, 1934.

(cont.) in order to collect our gopher traps. Two gophers were taken; one by Fitch and one by myself. They were caught three miles west of Hiko Spring, on the road to Searchlight.

Fitch discovered a chuckwalla lizard atop a rock, which I shot for him; my gun being handy.

We drove on to Barstow and spent the night there.

Feb. 15, 1934.

Left Barstow about 9 00 A. M. Arrived without incident in Oakland at 9 15 P. M.

Feathers. M. V. Z., Berkeley, Calif.
1934.

Mar. 4, 1934.
Three mi. S. E. Mt. Diablo,
Contra Costa Co., Calif.
147.8 Procyon Hall only 838-311-124-60.

Mar. 25, 1934.
Lake Merritt, Oakland Calif.
148. ♀ Brewer blackbird.

Feathers.
1934.

100 ft., ½ mi. S Ft. Bragg,
Mendocino Co., Calif.

May 23, 1934.

Robert T. Orr and I left Orinda, Contra Costa Co. at 9:15 A.M. We arrived in Santa Rosa at 11:45 A.M., having traveled via the Carquinez Bridge, Napa and the Sonoma Valley. We purchased groceries at Santa Rosa and also had lunch there. Fort Bragg was reached by 5:30 P.M. The route from Santa Rosa was via Healdsburg, Cloverdale, Booneville and Mendocino City.

A lazuli bunting (Passerina amoena) was seen a few miles north of Cloverdale. During a momentary stop along the Navarro R., a few miles west of Navarro, the calls of several birds were identified. They were: Steller Jay, kingfisher, pileolated warbler, russet-backed thrush and song sparrow.

A brush rabbit was seen along the road west of Navarro, and also a rubber snake, which had been crushed on the road.

We endeavored to locate in a cabin near Ft. Bragg, but could find none ~~available~~ available. Inquiries elicited the information that gophers were quite numerous in the vicinity. We saw numerous gopher mounds. Camp was made at an auto camp ½ mi. S Ft. Bragg. The proprietor had caught a gopher that afternoon, which I secured.

Feathers.
1934.

100 ft., ½ mi. S Ft. Bragg,
Mendocino Co., Calif.

May, 24, 1934.

Early in the morning, we drove toward Ft. Bragg. A large field, heavily carpeted with tall grass, was inspected en route. No gopher workings were seen, so we continued on to Ft. Bragg.

In a large field, east of the center of town and within the city limits, 29 sets were made by Orr and myself in the morning. Rain had fallen during the night, which made fresh mounds readily recognizable. This field was cut-over redwood timber land, which was overgrown with patches of brush, composed of Salmon-berry, Ceanothous, manganita, Bishop Pine, redwood and rhododendron. The more open ground was covered with numerous grasses, flowers and California blackberry. Gopher workings were more in evidence in the open grassy ground.

We returned to our cabin for lunch. Fifteen gophers were taken when we inspected our traps in the early afternoon. Seven fresh settings were made in the same field.

We then made 12 settings on the north bank of the Noyo R., where it approaches closest to Ft. Bragg.

Five of the first settings were re-visited,

Feathers
1934.

100 ft., ½ mi. S Ft. Bragg,
Mendocino Co., Calif.

(cont.)

May 24, 1934.

furnishing three more gophers.

When we returned to the auto camp, the grandson of the proprietor presented us with a gopher, which he had caught on the premises.

In setting traps, gravelly soil, black sand and sandy loam were encountered.

May 25, 1934.

The morning was spent putting up the skins of the gophers caught the previous day. I put up seven gophers.

After lunch, our traps were visited. Cats, dogs or children had disturbed several of our sets. Seven gophers were taken. Probably three more had been eaten from the traps; making a total of 28 gophers caught in this approximately ten acre field, in 30 hours.

But two gophers and one mole were taken from our twelve sets near the river. All our traps were taken up and we returned to camp. In the evening, I put up three more gopher skins.

Of the seven gophers previously mentioned, two were taken in one setting. They were an adult male and an adult female.

Feathers.
1934.

100 ft., ½ mi. S Ft. Bragg,
Mendocino Co., Calif.
May 26, 1934.

In two fields, east and west of the highway at the northern city limits of Ft. Bragg, 29 sets were made. Thirteen of these were set by me and 16 by Orr.

After lunch the traps were visited. Four gophers were taken from my traps and eight from Orr's. We moved several of the traps from the west to the east field, and at the conclusion of the setting, I had 15 sets out.

The soft, sandy loam of the east field apparently contained a far greater number of gophers than did a similar drea of the gravely soil in the west field.

We returned to camp and put up the skins. Orr put up sevens gopher skins, I doing five.

May 27, 1934.

We visited our traps at the northern city limits of Ft. Bragg in the morning. In the west field, I had caught a mole and a gopher. In the east field, another gopher and a weasel were taken. The weasel was caught in a gophertrap, set in an open gopher hole. His stomach contained the hind foot of a gopher.

I left seven sets out, when we returned to camp. I put up the weasel, mole and one gopher skin. The other gopher was so small as to be worthless as a specimen.

100 ft. ½ mi. S F. Bragg

Mendocino Co., Calif.

May 27, 1934.

(cont.) After lunch, we returned to our gopher sets. I took ~~a~~ two gophers from my traps. All traps were taken from that locality and re-set on the property of the Union Lumber Co., west of town. I made 14 sets.

We returned to camp and had dinner. Boys brought in two gophers, taken from nearby lots. I put up three gopher skins in the evening.

May. 28, 1934.

Our traps were visited the first thing in the morning. Two traps from one of my sets had disappeared. From the remaining 13 sets, I took 12 gophers. I made two fresh sets and left one of the old ones out.

We returned to camp, where I put up five gopher skins. After lunch, we returned to the traps. I had caught one more gopher. ~~Three sets~~. Two old sets were left out and two new ones made.

The afternoon and evening was spent skinning and caring for skulls, etc. I put up seven skins I had caught in the morning. Boys brought in a gopher from nearby. I skinned and put up two more gophers.

Feathers-
1934.

100 ft., ½ mi S. F. Bragg,
Mendocino Co., Calif.
May 29, 1934.

Two traps at widely separated points on Union Lumber Co. land west of town, visited early in the morning, proved unproductive. Both were put in order. Orr and I then drove to the northwest section of town to search for suitable trapping grounds. I set one trap near the railroad tracks. We then walked over a large unpromising area which, altho seeming a likely territory, was barren of gopher mounds. Upon our return to the car, I took up the one set I had made. We then drove to the field east of town, where we had been so successful on May 24th.

I put out 12 sets; many of them being at places where gophers had previously been caught, but which showed fresh signs of activity. Orr set approximately the same number.

After lunch I took a gopher from each of the traps west of town, and ~~ten~~ eight gophers from the 12 sets to the east. Orr had caught 12 or 13, which, combined with my catch, totaled more than enough to fill our quota of 100 gophers.

The afternoon and evening was spent in putting up all the skins taken that day.

In cases where it was necessary to use a single trap in making a set, it was found to be generally as successful as the two traps method.

Feathers.
1934.

100 ft., ½ mi. S Ft. Bragg,
Mendocino Co., Calif.
May 30, 1934.

In the morning we packed, cleaned the cabin and prepared to leave for home. We left Ft. Bragg at near 9:00 A.M., had lunch in Willits at 12:30 P.M. En route several birds were noted (Warbling vireo, wren-tit, pileolated warbler and russet-backed thrush) and a brush rabbit was seen. Specimens of trees and shrubs were taken for later identification.

The trip from Willits to Berkeley was without unusual incident. I arrived home at 6:30 P.M.

Feathers.
1934.

100 ft., ½ mi. S of F. Bragg,
Mendocino Co., Calif.

May 23, 1934.

149 ♀ Thomomys bottae. 170-51-25-5 Wt. 61.7 gr.

May 24, 1934.

150 ♀ Thomomys bottae. 160-49-26-5 Wt. 57.9 gr.

100 ft., F. Bragg, Mendocino Co., Calif.

May 24, 1934.

151 ♂ Thomomys bottae. 218-63-28-6 Wt. 122.9 gr.
152 ♂ " " 190-54-26-6 " 107.0 "
153 ♂ " " 196-60-26-6 " 107.4 "
154 ♂ " " 210-62-26-6 " 126.6 "
155 ♂ " " 210-60-26-6 " 117.9 "
156 ♀ " " 170-55-25-5 " 52.1 "
157 ♀ " " 165-51-25-5 " 48.5 "
158 ♀ " " 165-50-24-5 " 43.8 "

May 25, 1934.

159 ♀ Thomomys bottae. 180-55-24-5 " 53.6 "
160 ♀ " " 174-52-25-5 " 50.0 "
161 ♀ " " 198-59-26-5 Wt. 67.3 "

May 26, 1934.

162 ♂ " " 215-56-27-6 " 120.0 "
163. ♀ " " 205-60-27-6 " 102.4 "
164 ♂ " " 200-52-26-5 " 103.3 "
165 ♀ " " 195-60-26-5 " 100.9 "
166 ♂ " " 217-65-27-6 " 125.7 "

May 27, 1934.

167 ♂ " " 200-62-26-6 " 100.7 "
168 ♀ Scapanus. 172-32-22 " 73.0 "
169 ♀ Mustela frenata. 360-135-40-20 " 156.5 "

Feathers.
1934.

100 ft., Ft. Bragg, Mendocino Co., Calif.

May 27, 1934.

170	♀	Thomomys bottae.	148-46-23-4	Wt.	38.0 gr.
171	♀	"	"	180-55-26-5	"	76.1 "
172	♀	"	"	172-53-24-5	"	49.9 "

May 28, 1934.

173	♂	"	"	200-62-26-5	"	117.8 "
174	♂	"	"	202-60-26-6	"	112.7 "
175	♂	"	"	220-70-26-6	"	120.7 "
176	♂	"	"	228-67-29-7	"	152.8 "
177	♂	"	"	214-62-27-6	"	113.1 "
178	♀	"	"	215-67-28-6	"	100.3 "
179	♀	"	"	210-70-28-5	"	95.5 "
180	♀	"	"	200-60-26-6	"	84.6 "
181	♀	"	"	196-60-27-5	"	75.0 "
182	♀	"	"	207-67-27-6	"	96.0 "
183	♀	"	"	185-60-26-6	"	65.3 "
184	♀	"	"	200-60-24-5	"	92.5 "
185	♀	"	"	168-51-24-5	"	52.4 "
186	♀	"	"	195-63-26-5	"	79.0 "

May 29, 1934.

187	♂	"	"	225-70-27-6	"	127.8 "
188	♂	"	"	233-70-28-6	"	144.4 "
189	♂	"	"	232-70-27-6	"	144.0 "
190	♂	"	"	195-56-25-5	"	74.5 "
191	♂	"	"	168-58-24-4	"	47.3 "
192	♀	"	"	187-60-25-5	"	69.0 "
193	♀	"	"	180-59-24-5	"	73.0 "

Feathers.
1934.

100 ft., Ft. Bragg, Mendocino Co., Calif.
May 29, 1934.

194.	♀	Thomomys battae.	185-60-24-5	Wt.	49.5 gr.
195.	♀	" "	183-55-23-5	"	68.5 "
196.	♀	" "	?168-57-24-4	"	75.3 "
197.					

Feathers, D.A.

Nevada: Mineral, Lander & Lyon Co.

1934

1934

Zoology Field Class: June 27- August 1, 1934
Nevada: Mineral, Lander & Lyon Cos.

Feathers, D.A.

Catalog of specimens
Nos. 198 — 243 10 pp.

Itinerary

Feathers.

1934.

June 28. 2 mi. SW Pine Grove, 7250 ft., Mineral Co., Nev.

198. ♀ Thomomys quadratus. 194-57-25-5 Wt. 71.4 gr.

199. ♂ Chordeiles acutipennis texensis. " 66.6 "

June 29.

200. ♀ Thomomys quadratus. 167-46-24-4. " 57.0 "

June 30.

201. ♂ Cassin finch. " 27.0 "

12 mi. S Yerington, 4600 ft., W. Walker R., Lyon Co., Nev.

July 2.

202. ♂ Yellow warbler. " 10.1 "

203. ♀ Sparrow hawk. " 109.8 "

July 3.

204. ♂ Lazuli bunting.

July 4.

205. ♀ Ondatra zibethica mergens. 590-270-80-22 " 1 Kilo. 32 gr.

206. ♀ Thomomys bottae. 200-60-27-6 " 83.0 "

July 5. ~~" 14.9~~

207. ♂ Lazuli bunting. " 14.9 "

209. ♂ Amphispiza bilineata. " 16.5 gr.

July 6.

210. ♂ Downy woodpecker. " 25.0 "

211. ♂ Bullock oriole. " 40.5 "

3 mi. S Shurz, 4100 ft., Mineral Co., Nev.

July 8.

212. ♂ Hairy woodpecker. " 67.8 "

213. ♂ Western warbling vireo. " 11.0 "

214. Leopard lizard.

215. ♀ Pipistrellus hesperus. " 4.9 "

Feathers.
1934.

July 8. 3 mi. S Shurz, 4100 ft., Mineral Co., Nevada.

216. ? Western solitary sandpiper. Wt. 58.0 gr.

July 10.

217. ♂ Sitta canadensis. " 12.1 "

218. ♂ Yellow warbler. " 8.6 "

219. ♂ Bullock oriole. " 44.6 "

220. ♂ Lasionycteris noctivagans. " 8.0 "

July 12. Lapon Canyon, 8900 ft., Mt. Grant, Mineral Co., Nev.

221. ♂ Thomomys quadratus. 189-55-26-6 Wt. 73.6 gr.

July 13.

222. ♀ " " 203-55-28-6 " 96.0 "

223. ♂ " " 214-58-29-6 " 91.7 "

July 14.

225. ♀ Canis lestes. 1115-305-187-112 Wt. 23 lbs.

Cottonwood Creek, 7400 ft., Mt. Grant, Mineral Co., Nev.

July 15.

226. ♂ Green-tailed Towhee. Wt. 28.6 gr.

227. ♂ Zonotrichia. " 26.3 "

July 16.

228. ♂ Pipistrellus hesperus. 70-29-7-12 " 3.7 "

229. ♀ " " 75-33-7-14 " 6.0 "

230. ♀ " " 74-30-7-13 " 4.2 "

231. Crotalus.

232. ♀ Empidonax hammondi. " 11.1 "

July 19, 233. ? Cowbird. E. Walker R., 5050 ft., 2 mi. NW Morgans Ranch, Mineral Co. Nev. " 43.5 "

E. Walker R., 5050 ft., 2 mi. NW Morgans Ranch, Mineral Co., Nev.

July 19. ♀ Mystes. 85-40-8-14. No. 234. " 4.3 "

235. ♀ " 87-40-8-14. " 5.1 "

Feathers -

1934.

July 24. Smiths Creek, 5800 ft. Lander Co. Nev.

236. ♀ Myotis volans. 92-42-10-14. Wt. 7.8 gr.

237. ♂ " " 92-43-10-14. Wt. 6.5 "

July 27. Petersons Creek, 7000 ft., Shoshone Mts., Lander Co., Nev.

238. ♂ Myotis volans. 96-47-10-14. Wt. 6.9 gr.

239. ♀ " " 96-~~45~~ 47-10-14. Wt. 6.5 gr.

July 28.

240 ♂ Myotis volans. 97-47-10-13. Wt. 7.0 gr.

July 29. Wadsworth, Lyon Co. Nev. 4100 ft. Elev.

241. ♂ Eptesicus fuscus. 102-47-12-16. Wt. 9.6 gr.

July 30.

242. ♀ Eptesicus fuscus. 115-48-12-19. Wt. 21.0 gr.

July 31.

244. ♀ Eptesicus fuscus. 116-52-11-18. Wt. 15.8 gr.

July 28. Petersons Creek, 7000 ft., Shoshone Mts., Lander Co. Nev.

243. ♂ Audubon warbler. Wt. 12 gr.

Feathers.
1934.

Itinerary

June 27. 2 ± mi. S. W. Pine Grove, 7250 ft.,
Mineral Co., Nevada.

Left Berkeley, Calif., at 9^00 A. M., ~~a~~ June 26, 1934, in three automobiles with a party of seven, as follows: J. Stanley Broode, Elton R. Edge, Lawson A. Feathers, E. Raymond Hall, David H. Johnson, Fletcher A. Palmer, and Ward C. Russell. Drove via Carquinez Bridge, Sacramento, Placerville, S end Lake Tahoe, Glenbrook, Carson City, Minden, Gardnerville, to a point about 15 mi. S of Gardnerville, where we slept beside the road.

Left our overnight camp, 6^00 A. M., and drove via Wellington, eastward along the west Walker River into Mason Valley; thence southward to a point 4½ mi. N E Pine Grove, turned right and drove up a canyon past Pine Grove to campsite as given above.

Arrived here about 11:30 A. M., made camp, and I cooked the first meal of the trip.

June 28 I set four gopher traps at springs near camp. In the P. M., I made a three-trap setting for a coyote, using bacon rind for bait. When I looked at my gopher traps, I found one had been sprung, two un-molested and one gopher was caught.

I put up the gopher skin later in the day.

Feathers.
1934.

2 mi. S W Pine Grove, Mineral Co., Nev.
7250 ft.

June 28. In the evening, about 7^oo P. M., I shot a night-hawk.

Two reproductive tracts were taken on the 27th and seven on the 28th of June.

June 29. I secured one gopher from my three sets. & put up the gopher and the night-hawk.

Later in the day, Johnson and I set two traps at the entrance to a badger den.

Night-hawks flew up the canyon at 6:30 P.M. There were approximately ten in the flock. They flew back down the canyon at 7:30 P.M.

June 30. My coyote traps were visited without result. I took them to camp.

I shot a Cassin finch from a piñon pine, and put up the skin in the afternoon. We prepared to leave camp.

July 1. 4600 ft., 12 mi. S Yerington, W Walker R., Lyon Co., Nevada.

We arrived at the above location just before noon. Camp was made.

Raccoon tracks were seen at the edge of the river & along ditches. Skunk tracks and mole workings were also seen. I set four traps for skunk or coon.

Feathers.
1934.

July 2. 4600 ft., 12 mi. S Jerington, W Walker R., Lyon Co., Nev.

I visited my steel traps, finding nothing caught. I shot and put up a yellow warbler in the morning. In the afternoon I set one gopher letting, and shot and put up a sparrow hawk.

July 3. I shot and put up a lazuli bunting. Later, I took a muskrat from one of my steel traps, at the edge of the river. Bacon rind had been used as bait.

July 4. I put up the muskrat skin, and also a gopher, which I had ~~I~~ caught in damp soil near camp.

July 5. I shot a lazuli bunting. Testes greatly enlarged. Later I shot a black-throated sparrow, and put up the skins of both birds.

July 6. In the morning, I shot a downy woodpecker and a bullock oriole. I put up the skins of both birds in the afternoon. All steel traps which I had set, were taken up.

Feathers — 3 mi. S Shurz, 4100 ft., Mineral Co., Nev.

1934

July 7. The morning was spent in moving to the above location, where we made camp, just before noon. In the afternoon, I shot a hairy woodpecker and a warbling vireo, near camp.

July 8. I put up the hairy woodpecker and the warbling vireo, which I had shot the previous day.

Later in the day, I shot a leopard lizard, a western solitary sandpiper and a pipistrelle.

July 9. During spare moments, I put up the sandpiper and the pipistrelle.

July 10. I shot a red-breasted nuthatch from a cottonwood near the river. I also shot a yellow warbler and a bullock oriole from cottonwoods within a few hundred yards of camp. In the evening, I shot a silvery-haired bat.

I put up the birds during the afternoon.

Lapon Canyon, Mt. Grant, 8900 ft., Mineral Co., Nev.

July 11. I put up the Lasionycteris in the morning. The rest of the day was occupied in moving to the above location, where we arrived about 2:30 P. M.

July 12. I caught a Thomomys quadratus near camp and prepared the skin subsequently. Later in the day, I set three steel traps for coyote, ½ mi SE of camp.

Feathers.

1934.

Japon Canyon, 8900 ft., Mt. Grant,
Mineral Co., Nev.

July 13. I caught two gophers near camp and prepared the skins.

July 14. Russell and I drove up to my coyote setting and found a coyote in two of the traps. I skinned it in the morning. Three traps had been used in the setting, which was approximately ½ mi. SE of camp. In the afternoon, we moved to Cottonwood Creek.

Cottonwood Creek, 7400 ft., Mt. Grant,
Mineral Co., Nev.

July 15 I shot a green-tailed towhee and a white-crowned sparrow near camp. The skins were put up later in the day. In the evening I shot three pipistrelles at camp.

July 16 I put up the three bats in the morning. Later I killed and pickled a rattlesnake. I also shot a Hammond flycatcher near camp and put up the skin.

July 17 E. Walker R., 5050 ft., 2 mi. NW Morgano Ranch, Mineral Co., Nev.

The morning was occupied in moving from Cottonwood Creek to the above location.

Feathers.

1934.

July 18. E. Walker R., 5050 ft., 2 mi. N.W. Morgans Ranch, Mineral Co., Nev.

No specimens were put up.

July 19. Dr. Hall and I drove across the field near camp, in the late afternoon. Six cowbirds were seen, of which I shot one. Dr. Hall shot a horned lark.

In the evening, I shot two Myotis at the edge of the cottonwoods. The cowbird was put up in the evening.

July 20. We moved to a point on Lincoln Highway just inside Lander Co., east of Carroll Summit, for an overnight stop.

July 21. Smiths Creek, 7700 ft., Lander Co., Nev.

Camp was made at above location at noon.

July 22. No specimens. I set a setting for coyote, as numerous tracks had been seen near camp.

July 23. Smiths Creek, 5800 ft., Lander Co., Nev.

No results from my coyote trap. I shot a Callospermophilus for Dr. Hall. We moved to the above location, at which we arrived at 2:00 P.M.

July 24. I shot two Myotis volans at camp.

July 25. The two Myotis were put up in the morning.

Feathers.

1934

July 26. Petersons Creek, 7000 ft., Shoshone Mts., Lander Co., Nev.

We arrived at the above location at 11:00 A.M.

July 27. I shot two Myotis near camp.

July 28. In the morning I put up the two Myotis skins.
Early in the evening, I shot a Myotis volans near camp.

July 29. Wadsworth, ~~Nev~~ 4100 ft., Lyon Co., Nev.
We moved to the above location during the day.
I shot a big brown bat in the evening, near camp.

July 30. In the morning, I put up the Eptesicus. In the early evening, I shot another Eptesicus near camp.

July 31. I put up the brown bat in the morning. In the evening, at camp, I shot another Eptesicus.

Aug 1. In the morning I put up the Eptesicus, and prepared to break camp.

Section 4

Humboldt Co, Calif.

October, 1935

Feathers, Oa.

Feathers, Da.
1935

Humboldt Co., Calif.
Oct. 4 - 25, 1935

Feathers
1935.

Boyes Prairie, Prairie Creek State Park,
~40 ft., Humboldt Co., Calif.

Oct. 4, 1935.

Mr. W. C. Russell and the writer, D. G. Feathers, left Berkeley at 7:30 A. M., having as a destination the Prairie Creek ~~State~~ Park in Humboldt Co., Calif. The object of the trip was to make a survey of Cervus roosevelti in and about the Park, and to submit a report on the present status of the elk.

Travelling via Napa, St. Helena, Geyserville and the Redwood Highway, we reached the Park at 7:30 P. M. The custodian of the Park was absent, but we were directed to a cabin by another party.

Oct. 5, 1935.

In the morning we met Mr. T. G. Meier, Technical Expert for the C. C. C., Dept. of the Interior. In response to our questions concerning the elk, he stated that there were considerable numbers of them in and about the Park. He mentioned that a bull elk had been found shot on the beach near Gold Bluffs and that a hindquarter had been cut from the carcass. To his knowledge all attempts at making an arrest for the shooting of the elk had failed. Another elk had been

Feathers. 1935.

Boyes Prairie, Prairie Creek State Park, 240ft., Humboldt Co., Calif. 2.

(cont.) Oct. 5, 1925.

killed on the highway by a truck. No mention was made of the disposition of the carcass. He said some damage had been done to farmers' crops, but seemed to think it of little extent.

From maps kindly loaned us by Mr. Meier we concluded that the length of the Park (North and South) to be approximately 8 miles. The widest point is some two miles and the narrowest, about ¼ mi. The area of the Park is in excess of 6000 A.

Boyes Prairie is a flat, natural meadow bordering Prairie Creek, and appears to cover approximately 100 acres. The surrounding country nearby is all heavily timbered. The public camp ground, C.C.C. camp and custodian's dwelling are located at the north end of this field.

After our conversation with Mr. Meier, Mr. Russell and I walked up the Prairie Creek trail for a distance of approximately 4 miles. Near the "Swimming Hole", a distance of about two miles from camp, elk tracks and droppings were seen. Elk "sign" was seen along the trail frequently during the next two miles' progress. This trail led through heavy timber of redwood, hemlock,

Boyes Prairie, Prairie Creek State Park, 240 ft., Humboldt Co, Calif.

(cont.) Oct. 5, 1935-

alder and maple. Evidence was found of elk climbing the steep, heavily timbered ridges above Prairie Creek. We returned to camp about 1:00 P.M. No elk were seen during the walk. Birds and mammals noticed were: Raven-5, kingfisher-2, quail-5, wood duck-3, band-tailed pigeon-1, chickadee-5, and one chipmunk.

After lunch we drove south on the highway 4 miles, thence west on a dirt road one half mile to Mr. Davison's ranch. We met Mr. Davison there and questioned him concerning the elk. He stated that it was a common thing for the elk to enter his pastures and gardens to feed. He claimed a great loss of carrots and potatoes he had suffered was due to the destructiveness of the elk.

We then drove west 2½ miles through a ~~heavy~~ heavily timbered, hilly country to the Gold Bluff Mine, located on the ocean beach at Gold Bluffs. During a conversation with the mine proprietor, Mr. Smed~~burch~~berg, we learned that the greatest number of elk he had seen in one herd was nineteen. We saw evidence of where the elk had destroyed flowers in a garden alongside the walls of the residence. Elk tracks were seen

Boyes Prairie, Prairie Creek State Park, 240 ft; 4.
Humboldt Co., Calif.

(cont.) Oct. 5, 1936.

within one yard of the house. Mr. ~~Bedbook~~ Smedberg stated that elk could be heard and seen nearly every night from his house. He also said the elk visited the beach at night and roamed about on the sand. We saw fresh tracks in the sand on the beach.

A fresh-water lake about 2 acres in extent was situated two hundred yards inland from the ocean. The shores of the lake were fringed with tules and cat-tails. On all sides of the lake except that fronting the ocean, rose steep brush-covered hills. Some varieties of brush were: huckleberry, ~~Rhinoctoma~~, salal, salmon berry and wild blackberries and ferns.

Mr. Russell and I walked half way around the lake on one side, returned and walked part way around on the other side. Elk "sign" was very plentiful. Droppings, tracks and scarred tree trunks and broken alder saplings testified to the recent presence of elk. I heard a commotion in the brush and Mr. Russell and I soon saw three cows and two yearling elk trot up the opposite hillside and stop. They turned and watched us a few minutes and then commenced feeding. We waited

Boyes Prairie Prairie Creek State Park, 240 ft.,
Humboldt Co., Calif.

(cont.) Oct. 5, 1935.

ten or fifteen minutes, watching them and then decided to circle ~~to~~ toward them, in an effort to discover more elk in the intervening brush. We were in plain view of these elk the full time and, while they did not seem greatly alarmed, one ~~cow~~ cow watched us almost constantly.

Mr. Russell and I walked around to a different side of the hill and attempted to drive some more elk, which we had heard, into open country. On the way, we found definite elk beds under Sitka spruce ~~fir~~. The beds were in a thicket, well screened from the ocean winds. Some more elk were jumped near there and one cow was seen. We returned to Mr. ~~Smallwood's~~ Smugherg's house and conversed with his wife a short while. She told us that the big bull elk of the herd had become entangled in her radio aerial at some time in the past and still carried some of the wire on his antlers.

In our investigation of the herbage where we had seen the elk feeding, Mr. Russell and I decided that the elk had eaten ~~sour grass~~ sedge, salal leaves and huckleberries. The huckleberry ~~bu~~ leaves were not eaten, just the berries.

We returned to camp for the remainder of the evening.

Feathers. Boyes Prairie Prairie Creek State Park, 2400 ft. 6.
1935. Humboldt Co., Calif.

Oct. 6, 1935.

Russell and I left camp in the truck at 6:30 A. M. and drove to the "Corkscrew Tree", 1½ miles north of Camp. We left the car there and walked north up the Prairie Creek trail about 3½ miles. One fresh elk track was seen, but none of the elk were noticed. During this walk we identified one brush rabbit, one flicker, one hermit thrush and several chickadees.

We returned to the truck ~~along~~ via the highway and then drove north to the Del Norte Co. line. There we met a man, the caretaker of the Cruthers ranch, who gave us permission to drive the truck down to the ranch house. Before starting down Russell shot a pigmy owl, which had flown into an alder sapling. We drove west down a steep grade, dropping approximately 800 ft. to sea level.

We walked down the beach about one mile. Tracks were seen of coon, skunk and deer. We then climbed the brush covered hillside to about 200 ft. elevation and proceeded south, maintaining our elevation as we proceeded. The hillsides were grown over with salal, sword fern, alder saplings, salmon berry and sitka spruce, named in the order of their importance.

Feathers Boyes Prairie, Prairie Creek ~~State~~ Park, 240 ft., 7.
1935. Humboldt Co., Calif.

(cont.) Oct. 6, 1935.

Cattle were pastured over all this land. No fresh elk sign was seen, but Russell found the skull and parts of the skeleton of a young cow elk. This was found in a bedding ground under stunted sitka spruce.

We climbed down the steeply sloping hillside to the ocean and returned to the truck via the beach. The caretaker at the Cruthers place told us of finding the head and entrails of a bull elk some time ago, on the beach 3 miles south of the Del Norte-Humboldt Co. line. He said that appearances indicated that some one had hauled the meat away with a wagon.

We drove back to camp and had lunch.

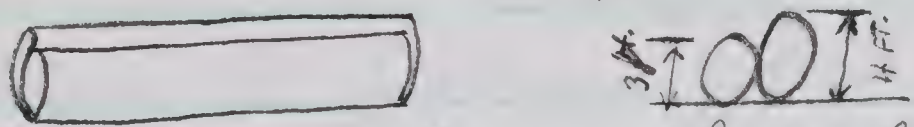
In the early afternoon, Russell and I walked east of camp on the "Indian Trail" to the eastern boundary of the Boyes ranch. There, on two redwood logs which lay side by side, serving as a fence, we saw hoof marks showing where elk had jumped over into the cultivated field. At this time there was no crop growing and there were no fresh tracks of elk in the ~~soft~~ earth. The hoof marks on the redwood logs were quite evidently those of elk, in some cases the complete print of the hoof

Feathers
1936.

Doyes Prairie, Prairie Creek ~~State~~ Park, 240 ft.; S.
Humboldt Co., Calif.

(cont.) Oct. 6, 1935.

showing plainly in the soft wood. The tops of the logs were not deeply worn, but nevertheless showed evidence of the action of a great number of hoofs on their tops and sides. The initial lift to the top of the lower log was 3 ft., the upper log being about a foot higher. The following diagram may give an idea of the situation of the logs.



I secured two frogs on the trail in the redwoods. We continued east on the "Indian Trail" for a distance of approximately two miles. During the latter part of the walk we ascended to an elevation of about 500 ft.

No elk nor fresh "sign" was seen on this walk.

Some birds identified were: Several ravens, three juncos, 2 song sparrows, several goldfinches and one hermit thrush.

The territory covered in this walk was lacking in most of the food plants we have identified as elk food. Huckleberry bushes were there, but bore no berries. There was little or no salal and few salmon berry bushes.

We returned to camp about 6:00 P.M.

Feathers
1935.

Boyes Prairie, Prairie Creek State Park, 240 ft., 9.
Humboldt Co., Calif.

Oct. 7, 1935.

Russell and I left camp at 6:30 A. M., walked ~~west~~ northwest on the Godwood Trail 4 miles and arrived at the Upper Gold Bluff mine at 8:45 A. M. Some elk sign was seen on the trail en route, but little sufficiently fresh to indicate the presence of many elk nearby.

We noticed two horses in the small pasture at the mine and about fifty sheep running free on the beach just about a hundred yards beyond. The beach was about 250 yards wide at this point, and was backed by gently sloping grassy land of widths varying from a few feet to 50 yards, which in turn was surmounted by precipitous bluffs. In places, alder thickets grew right down to the beach sands. The faces of the bluffs were also covered in part by alder thickets. Sitka spruce topped the bluffs.

On the way over to the beach we saw: several chickadees, two wrens, several ravens, and on the beach, several pigeons, 5 gulls, 5 cormorants, 5 brown pelicans, 5 killdeer, 2 blue herons, 1 pipit, 5 white-crowned sparrows and several song sparrows. Also, 2 meadowlarks and 1 burrowing owl were seen on the beach.

Russell and I walked south on the beach to the mouth of Squashan Creek, a distance of about 1½ miles from Upper Gold Bluff mine. On the

Feather 1935- Boyes Prairie, Prairie Creek State Park, 240 ft., Humboldt Co., Calif. 10.

(cont.) Oct. 7, 1935.

way we found the skeleton of an old buck deer on the sand at the base of a bluff. Three head of cattle were seen as we walked down the beach. Some old elk sign was seen at the base of the bluffs. Skunk tracks were common on the beach, extending sometimes almost to the water's edge.

We lunched on the beach, and then went up the mouth of Squashan Creek a few hundred yards. From there we commenced climbing the ridge to the north. It was heavily covered with with brush and some Sitka spruce. The brush was huckleberry, salmon berry, salal and the ever present sword fern. Climbing was very difficult, but within the distance of one half of a mile we had ascended above the heaviest growth of brush to where walking was easier.

From the tops of the bluffs an almost pure stand of Sitka spruce timber with heavy undergrowth of brush obtains for from two to four hundred yards inland. This is followed by timber where redwood predominates, with undergrowth of scattered huckleberry and thick sword fern.

About a half mile from the coast we saw a redwood tree with the bark stripped all around

Boyes Prairie Prairie Creek ~~State Park~~, 240 ft; Humboldt Co., Calif.

(cont.) Oct. 7, 1935-

the trunk from about two feet above the ground to a height of seven feet. The tree was three feet in diameter. Gashes in the wood torn from below, indicated the work of a bull elk. Later on, farther inland, we found another such tree. Elk sign was fresh and plentiful from the tops of the bluffs to about a mile inland. From there on to camp there was little fresh sign.

In places within the one mile belt near the ocean we saw sword fern roots with the leaves eaten off, which had evidently been either pulled from the ground during the elk's feeding or dug up with the hoofs. We found two beds of elk in old rotted redwood. The rotten wood had been scattered and a slight depression made in the center. The beds were some five feet or more in diameter.

As we continued our walk from where we struck the Upper Gold Bluff trail we heard two chipmunks and saw a doe and fawn deer.

We arrived in camp about 4:30 P. M., having walked about 12 mi. by trail.

Oct. 8, 1935.

Russell and I left camp at 6:40 A. M. One and one half miles west of camp, on the Upper Gold Bluff trail, Russell shot a chickaree,

Feathers 1935. Boyes Prairie, Prairie Creek ~~State~~ Park, 240 ft. 12.
Humboldt Co., Calif.

(cont.) Oct. 8, 1935.

which was in a small redwood tree. The shot started a large animal from nearby, which ran off thru the brush, making considerable noise. I ran down the trail in an endeavor to intercept and identify the animal. As I slowed down to a walk, I saw the rear part of an elk, visible thru the brush. The rest of its body was entirely hidden. When I tried to get in a position to see the rest of the animal it ran off, crashing thru the brush. I followed it and heard it frequently, but was unable to catch sight of it again.

Shortly later, as we walked along the Upper Gold Bluff trail ¼ mi. SE of its junction with Squashan Creek trail, I noticed what appeared to be an excavated spring, 100 feet below and to the north of the trail. Russell and I went down to investigate it. Elk tracks and droppings were plentiful near the spring. On closer inspection it appeared to be a bear or elk wallow. This small basin was an excavation in soft black mud, at the head of a natural spring. It was 10 feet long and five feet wide, with sloping sides. In the center the water was about 12 inches deep. Numerous hairs, tentatively identified as those of elk, were found floating in the water. Elk tracks indicated where elk had entered and left the pool

Boyes Prairie, Prairie Creek State Park, 240 ft., Humboldt Co., Calif. 13.

Oct. 8, 1935.

recently. The ground and ferns on all sides of the wallow were spattered with mud. This had occured within the time since the last heavy rain, five days hence. No human handiwork was visibld and the work of excavation was thought to be that of elk. No bear tracks were seen in the vicinity. A trail of mud spatterings with elk tracks was followed for a distance of 150 yards from the wallow. Ferns five feet from the ground were mud spattered. No cattle whatsoever were in that vicinity.

At the junction of the Upper Gold Bluff trail with the Squashan Creek trail we found another elk wallow, almost identical with the first one seen, in size and general character of surroundings. The absence of mud on leaves and ferns indicated it had not been used since the last rain.

As we walked down the Squashan Creek trail we noticed numerous signs of elk. One hundred and eighty five pellets were counted in one pile of elk droppings.

About ½ mi. down this trail we heard cones dropping ~~fr~~ from a tall Sitka spruce. We soon noticed a chickaree aloft in the tree. Elk beds were numerous in this vicinity. A few hundred yards on southwest along the trail

Feathers
1934.

Boyes Prairie, Prairie Creek State Park, 240 4. 14.
Humboldt Co., Calif.

Oct. 8, 1935-

I heard a crash in the forest and Russell and I saw a cow elk come into view. She slipped off thru the woods very quietly and we were unable to see her again. I picked up a deer horn in a canyon ½ mi. Southwest of here. Elk sign was very plentiful in this canyon, which opened out into a nice flat, sparsely timbered with redwood and spruce.

As we were investigating this area I ~~se~~ heard geese honking and soon saw a flock of about 25 flying south over the forest.

In this flat I found the horns and part of the skeleton of a bull elk. We later found parts of another skeleton. Five fresh elk beds were found here within an area of one acre. Elk sign was very common here. Broken bushes and uprooted sword ferns, elk trails, droppings and tracks showed this place to be ~~tha~~ frequented by a considerable number of elk. We estimated we were ½ mi from the ocean.

As we returned northeast on the Squashan Creek trail, we "jumped" and saw two cow elk near the trail. They were quite wild, and soon disappeared from sight.

We returned to camp back along the Upper Gold Bluff trail. Nothing of unusual interest was noted during the walk back. Distance covered-10 mi

Feathers
1935.

Boyes Prairie, Prairie Creek ~~State~~ Park, 240 ft., 15-
Humboldt Co., Calif.

Oct. 9, 1935.

Russell and I left camp at ~~7:45~~ 5:45 A. M. and started north on the Ridge trail. At 7:45 A.M. about 2 mi. north of camp Russell and I heard and saw a cow elk. She evidently became aware of our presence by scenting us. We were very quiet at the time but the wind was blowing in her direction. There was a heavy fog, making the visibility poor. The elk came walking toward us along the trail, looking for us and sniffing the air. When within twenty yards of us, she saw us and stopped. Within thirty seconds she became alarmed, whirled about and trotted off to the left of the trail in the direction whence she had come.

During all her movements, from when she was about fifty yards from us until she came to within 20 yards, we were able to see her only occasionally, due to the extreme density of the timber. The timber was almost solely redwood.

We walked on and passed the end of the trail about ½ mi. west of the Swimming Hole. Five C.C.C. boys were there at work on extending the trail to the north.

About 1 mi. farther north along the ridge we turned off the summit to the east and ate lunch. We then went down thru the heavy brush and fallen timber to the Prairie Creek trail.

Feather 1935. Boyes Prairie, Prairie Creek State Park, 140 ft. 16. Humboldt Co., Calif.

(cont.) Oct. 9, 1935.

Russell caught a water snake near where we entered Prairie Creek trail and we went on south. At the Swimming Hole we left the trail to walk back the highway to camp.

A few hundred yards south of the Swimming Hole, on the edge of the highway, Russell and I found fresh tracks of a cow and calf elk. They had traveled north along the side of the highway 140 yards. The tracks indicated that they had become frightened and jumped into the brush.

On the way to camp, we met Mr. Turner, the Park Custodian, and talked with him a few minutes. Among other irrelevant things he told us that a man he had known had shown him the head of a freshly killed bull elk about five years past and that he, Turner, had dug out the two canine teeth with his pocket knife. This occurred before his status as a law officer, he said. He then drove us the short distance to camp.

After lunch at camp, we drove south on the highway ¼ mi. to the Davison Ranch. We questioned him concerning the damage done on his ranch by elk. He produced a skeleton of a cow elk which he had gathered in the woods for us and then took us out to his carrot field. The carrot patch was about one acre in extent, fenced on one side. The

Feathers
1935.

Boyes Prairie, Prairie Creek ~~State~~ Park, 240 ft., 17.
Humboldt Co., Calif.

(cont.) Oct. 9, 1935.

remainder of the field was planted to clover and grass. This carrot field bordered on Prairie Creek. Our study of the field brought the conclusion that 25% of the carrot tops had been nipped off. This did not seem to injure the carrots greatly, for they seemed quite vigorous, growing fresh tops. The field was covered almost completely with elk tracks, old and fresh. In the ~~adjoining~~ adjoining grassy area we found the fresh tracks of two running elk. The tracks led up to and disappeared beyond a four foot barbed wire fence. The two elk had undoubtedly jumped the fence.

The elk had undoubtedly pulled up by the tops a great many carrots and eaten both the bulb and top. The tramping hoofs in the field had also done some damage to the carrots. Carrots were seen lying on the ground, some of them with pieces bitten from them, others unmarked. A few deer tracks were seen in the field.

We asked Mr. Davison what percentage of loss of his carrot crop he considered the elk responsible for, and he replied that he thought he had sustained a 50% loss. This seemed a fairly accurate estimate and coincided with our opinions, based on our recent investigations. The value of the crop was not readily ascertainable, as the carrots were used by Mr. Davison for

Feathers
1935-

Boyes Prairie, Prairie Creek State Park, 240 ft.; 18.
Humboldt Co., Calif.

(1 cont.) Oct. 9, 1935-

dairy cow feed. He did say he had employed a man for two weeks or more to cultivate the carrots.

We saw over thirty valley quail feeding near the ranch house with the chickens. He said that he never permits them to be shot on his ranch.

Mr. Davison told us that he arrived in Humboldt Co. 55 years ago and worked on the coast at Gold Bluff for some time. He said he had killed elk over there. Having come to the ranch where he now resides some 45 years ago, he stated that from that time until 10 years ~~past~~ ago he had seen no elk on his ranch! He saw the first elk on his ranch 10 years ago, he said. From that time until the present, he said the elk seen on and around the ranch had increased steadily in numbers.

Mr. Davison's statements should, in my opinion, be given full credit for veracity.

He stated that he has known elk to jump over a six foot fence. They had also broken parts of his fences a great many times, he said.

He told us of two cow elk with calves, that resisted all the efforts of his two dogs to drive them from his field. He said this occurred in June and that the calves had just been born.

We drove home to camp, arriving there at 6:00 P.M.

Boyes Prairie, Prairie Creek State Park, 240 ft.; Humboldt Co., Calif. ~~18.~~ 19.

Oct. 10, 1935.

Russell and I decided to visit the region known as the Bald Hills, some 12 mi. E of Orick, to ascertain whether there were elk in that vicinity. We had been told, on several occasions, that elk had been seen there.

We went first to an Indian's shack about 4 mi. north of here on the Redwood Highway to see if an elk skull we had seen there could be purchased. We did not find the Indian at home, so drove south to Orick.

The postmaster at Orick, Mr. Webster, told us he had seen one elk one mile south of Orick 5 years ago. He thought there had been an increase in the numbers of elk from 20 years ago until 1931. At this time he said he was reasonably certain that quite a number had been killed by illegal shooting.

Previous to 4 years ago complaints by farmers about the elk were common, he said. Recently there has been little mention of elk depredations, except from Mr. Davison, he stated.

Mr. Webster said that a Mr. Konrad had asked for assistance from the county Sheriff and the Fish and Game Commission in regard to elk destroying crops. The Fish and Game Commission had not responded and Webster thought Konrad had shot several of them.

Feathers 1935. Boyes Prairie, Prairie Creek State Park, 240 ft., Humboldt Co., Calif. 20.

(cont.) Oct. 10, 1935.

Mr. Webster told us he thought that elk were being killed at the logging camps situated about 1½ mi. W of Mr. Davison's ranch. He thought that logging operations now under way and planned for the future, in the privately owned property between the State Park and the Coast, would be responsible for a great reduction in the numbers of elk, in the near future.

Marth Konrad, butcher at Co-op Meat Co., ½ mi. N Orick, told us he had had crops severely damaged 4 years ago, had sought protection from the Fish and Game Commission and had received no aid. Shortly thereafter he said he had gone out and shot four elk in one of his fields. He said the local game warden was down on the highway watching him with binoculars, and that when some interested person told the warden to arrest the man shooting elk, the warden laughed and said that Konrad was just scaring them.

Konrad said he later confronted a board of F. and G. officers at the Eureka Inn and related the story of his experiences with the elk. He said Mr. Zellerbach, president of F. and G. told him (Konrad) that he did not blame him for shooting the elk, and that the Fish and Game Commission did not want the elk anyway.

Boyes Prairie, Prairie Creek State Park, 240 ft., Humboldt Co., Calif.

(cont.) Oct. 10, 1935.

He thought the elk had decreased during the last six years, at least in the vicinity of his ranch. He promised to show us the skeletons the next day.

We drove out on the road from Orick to Orleans 9.8 mi. and questioned a Mrs. Lyons at her ranch. At this place we were just entering the Bald Hills area. Near the ranch there was ~~a~~ an open grassy hillside area of approximately 1 sq. mi. Mrs. Lyons said she had seen two elk two months previous in an open pasture near the ranch. The elk (supposedly the same two) were next seen at her nephews ranch. Mrs. Lyons said she had been on the ranch for 40 years and had never seen an elk previously.

We drove on to the nephew's ranch, 14 mi. out on the road from Orick, and talked with the man, Mr. A. E. Lyons. He told us he had seen two bull elk on his ranch on open ground in June, 1930. He said he took his family down where they were and photographed the elk from within 40 yards. He had been told that elk were numerous near his ranch long ago. He was of the opinion that his sheep kept the elk ~~from~~ from coming back into the county. He had 4,000 sheep on a 9000 acre ranch. About ~~10~~ 6000 acres were open land, he said.

Timbered areas near here were of great variety, with Douglas fir predominating. Garry oaks fringed the

Feathers
1935.

Boyes Prairie, Prairie Creek State Park, 240 ft., 22.
Humboldt Co., Calif.

(cont.) Oct. 10, 1935.

edges of the open hillsides or "prairies". In the timbered sections were: Douglas fir, maple, vine maple, tan oak, yew and madroña.

We drove on to a ranch where we spoke with a Mrs. Tomlinson. This was 1 mi. farther east on the road. She told us her children had seen two elk at a watering trough on the road 10 mi. from Orick, ~~at~~ night, and had driven them up the road with their automobile. She said the local stage driver had seen them there frequently, previous to the discontinuance of the stage service one year ago. She had been there 25 years and had never seen an elk.

We drove back west on the road to Mr. Pugh's ranch a few hundred yards from the junction of The Orleans road with the Redwood highway. Mrs. Pugh said she had seen two elk on the hillside just west of the highway and within sight of her ranch house, sometime early in the summer of this year.

The statements of all these people seemed to coincide in a general way and had evidence of veracity.

We drove back to camp.

Birds and mammals identified during the day were: junco-s, raven-s, meadow lark-s, valley quail-s, varied thrush-s, chipmunk-s, chickaree-s grey squirrel-3.

Boyes Prairie, Prairie Creek State Park, 240 ft., Humboldt Co., Calif.

Oct. 11, 1935.

Russell and I drove south on the highway to Mr. Mathias Konrad's ranch, which is also the location of the Co-op Meat Co., situated ½ mi. north of Orick on the Redwood highway. Our object was to secure some skeletal material and to study the elk situation near there.

We arrived there shortly before 7:00 A.M. Mr. Konrad was not ready to go out with us immediately, so we took some notes while waiting for him.

Before we started out, Mr. Konrad told us that 15 years ago, when elk were destroying his hay crop, he called in the game warden from Crescent City. The warden inspected the damaged hay field and told Konrad not to harm the elk, that The Fish and Game Commission would reimburse him for his financial loss. Konrad said that the elk destroyed the bulk of his hay crop, and that the bill he submitted to F. and G. was returned with the statement that they could not pay for damage done by wild animals, and that the warden had no authorization to make him such a promise.

Konrad said that later he used all the means at his command to keep the elk from ruining his crops; such as: shooting them with a shotgun, shooting near them with a rifle, building and rebuilding fences and setting dogs after the elk.

Feathers
1935.

Boyes Prairie, Prairie Creek State Park, 240ft. 24.
Humboldt Co., Calif.

(cont.) Oct. 11, 1935.

The shooting, he said, drove them away for the time being only, they broke down the best fences he was able to build, and the dogs were frequently chased back by the elk.

Mr. Konrad stated that at one time when in the woods, he was attacked by a bull elk, shot it thru the eye guard, and when it charged again he was forced to kill it.

On 160 acres of cleared land, more than 200 of Mr. Konrad's sheep were grazing. He said he had had that many sheep there for the last two years. Previously he had not had sheep. He was convinced that the presence of the sheep was responsible in a large measure for the absence, recently, of elk on his property.

We went with Mr. Konrad to a place on the hillside ¼ mi. NW of his ranch. There, in a brush thicket, and covered with blackberry vines, we found the skulls and parts of the skeletons of two young bull elk. Russell and I took the two skulls. On this steep hillside, ~~a~~ Aplodontia burrows had been dug, the excavated earth therefrom being largely responsible for the partial burial of the elk skeletons.

Russell and I walked farther with Mr. Konrad in an endeavor to find another elk skeleton. We were unsuccessful, so

Boyes Prairie, Prairie Creek ~~State~~ Park, 240 ft., Humboldt Co., Calif.

(cont.) Oct. 11, 1935.

returned to his ranch house. No fresh elk sign was seen on our route, during this walk. At a place where Mr. Konrad had had timber cut 2 years past, we noticed the ~~growt~~ growth that had been made by thimble-berry and salmon berry. A salmon berry shoot of 1 year's growth was over six feet tall.

Russell and I left Konrad's and returned to camp. A heavy rain started and we spent the remainder of the afternoon in camp.

We packed our equipment and left camp for Berkeley at 7:00 P. M.

M. V. Z. Berkeley, Calif.

Oct. 12, 1935.

We arrived at Lane's Redwood Flat, on the Redwood highway at 2:00 A. M., slept there until 7:00 A. M. and then continued on our way to Berkeley. Arrived at M. V. Z., Berkeley, at 3:00 P. M.

Boyes Prairie, Prairie Creek ~~State~~ Park, 240 ft., Humboldt Co., Calif. 26.

Oct. 16, 1935.

With Mrs. Feathers and my daughter, Lucille, I left Berkeley at 5:00 P.M. Oct. 15, to return to Humboldt Co. and complete the elk survey initially undertaken by W. C. Russell and myself on Oct. 4, 1935.

We traveled via the Richmond - San Rafael ~~Ferry~~ ferry and Redwood Highway to Cloverdale, where we stopped for the night at 10:00 P.M., Oct. 15.

We left Cloverdale at 8:00 A.M., traveled north on the Redwood Highway and arrived at Boyes Prairie at 5:00 P.M.

The Park custodian, Mr. Turner, was absent, but we were assisted in getting settled in a cabin by Mr. Frank Heath, Superintendent of CCC camps. Weather - clear.

Oct. 17, 1935.

I left at 7:00 A.M., drove south to Mr. Davison's ranch and interviewed him. Of his ranch acreage, he said 111 acres were on the west side of Prairie Creek. Approx. 100 acres of this are tillable, the remainder being timbered land. Mr. Davison and I endeavored to ascertain, by his maps, the acreage of nearby ranches. Due to the uncertainty of his estimates, I decided to see all the various ranch owners and find the extent of their holdings at first hand.

Part of the remainder of the day was spent

Boyes Prairie, Prairie Creek State Park, 240 ft., Humboldt Co., Calif.

(cont.) Oct. 17, 1935.

at camp chores.

At 4:00 P.M. I interviewed Mr. Nyberg, lessee of land owned by Mr. McIntosh. Nyberg told me he had counted 125 elk while walking from Lower Gold Bluff to the mouth of Spanshen Creek. He seemed ~~fair~~ fairly certain of the truth of his assertion that there had been a number of elk of a different species from Cervus roosevelti ~~released near here.~~ released near here. Nyberg said he was certain that there were two "kinds" of elk here.

Later, when I talked to Mr. McIntosh, he said he owned 80 acres of land west of the highway, and that 25 acres were tillable.

I then returned to camp. Weather - clear.

Mr. and Mrs. R. T. Orr arrived at the camp in the evening.

Feathers. 1935.

Boyes Prairie, Prairie Creek State Park, 240 ft. 28.
Humboldt Co., Calif.

Oct. 18, 1935.

I left camp at 7:00 A. M., drove south on the highway five miles to Mrs. Alice Robinson's ranch. I learned from her that she owned 118± a. on the west side of the Redwood highway. Her son, Mr. Bert. Robinson, was in possession of 20 acres of hillside land west of the highway and south of Mrs. Robinson's property. They both seemed disposed to sell if offered a proper figure for their land. All of their land was tillable, they said. The Hammond Lumber Co. held 7 acres of tillable land west of the highway and north of Mrs. Robinson's land, she said.

I next visited Mr. ~~Balch~~ Baugh, whose ranch is at the junction of the Ureka road and the Redwood highway, 1 mi. N Orick. He was lessee of 8 acres of Hammond L. Co. land west of the ~~a~~ highway at said junction 1 mi. N Orick. This was hillside land, cleared and tillable. His own land was all on the east side of the highway.

Mr. Konrad told me, when I later visited him, that of the farm land between his place and the coast, Lowry held 320 A., one half tillable, and Melvin held 120 A., one half tillable. Just north of Konrad's ranch was a 25 acre tract of hillside land, held by Fulford.

I returned to camp.

Boyes Prairie, Prairie Creek State Park, 29.
240 ft., Humboldt Co., Calif.

(cont.) Oct. 18, 1935.

In the early afternoon, I learned from the CCC camp clerk that an elk carcass had been found by Mr. Elmer Gastman, one of the CCC foremen.

I approached him (Gastman), as he was leaving for his afternoon's work and requested him to direct me to the location of the carcass. He offered to accompany me personally, so we both went in my car.

We drove north 4 mi. on the Redwood highway to where a new park trail led west from the highway to the summit of the ridge west of and paralleling Prairie Creek.

Mr. Gastman and I walked west on this trail ½ mi. to the ridge summit, there coming to the end of the trail. From the trail's end, we walked north along the main ridge for another ½ mi. to where Mr. Gastman had hidden the antlers and skull, which he had previously removed from the carcass. I looked at the skull and saw that it was in very good condition.

We then went north a few hundred yards to where the rest of the carcass lay. All of the flesh was gone from the bones, but they were fairly well held together by remnants of skin and cartilage.

While Mr. Gastman and I had been

Boyes Prairie, Prairie Creek State Park, 30.
240 ft., Humboldt Co., Calif.

(cont.) Oct. 18, 1935.

walking from the car, I had found out that it was his intention to keep the antlers as an ornament. I explained to him their value as a scientific record of the species, especially inasmuch as the skull was so certainly identifiable with the rest of the skeleton and could be preserved therefore as a complete skeleton. He was not quick to relinquish his claim on the antlers, so I promised him I would try to purchase a pair to replace these. We tentatively agreed, so I later carried out the antlers and skull on our return trip, planning to return for the rest of the skeleton the following day. I later acquainted Mr. Orr with the incident.

We reached the car and drove back to camp.

Weather - clear.

Oct. 19, 1935.

Mr. Orr had expressed a desire to accompany me to the location of the elk carcass, so we both left in his car at 8:00 A. M. and drove 4 mi. north of here. We walked to where the carcass lay, which I decided was ¼ mi. N of the center of section 22, R 12 W 1 E, Humboldt Co., and probably on the west boundary of Prairie Creek State Park.

It was evident that a bear had been eating of the carcass. However, I was of the opinion that the elk had either died a natural death, or

Boyes Prairie, Prairie Creek State Park, 240 ft., 31.
Humboldt Co., Calif.

(cont.) Oct. 19, 1935.

had been shot. I saw no evidence of any struggle. The canine teeth were missing from the skull when I first saw it and Mr. Eastman said they had not been there when he found the carcass. The elk had apparently been dead one month or less. Its antlers had no velvet and were well polished.

Orr assisted me while I sacked the skeleton and later we each carried a sack of the bones back to the car. One sack of bones was left there, for ~~~~ which I intended returning the following day.

We drove back to camp.

Early in the afternoon Orr and I drove to the lower Gold Bluff mine. As we came within view of Mr. Smedberg's house at the mine, I saw a large bull elk standing on the open grassy hillside about 50 yards above the house. We drove closer to the house and got out of the car. Mr. Smedberg appeared, introductions were made, and we approached to within 50 feet of the house. I then took some photographs, incorporating in the scene, Mr. Smedberg, the house and the bull elk, grazing. The elk had not raised its head, up to this time.

Mr. Smedberg and I then commenced to climb the hill. When within about 50 feet

Boyes Prairie, Prairie Creek State Park, 32.
240 ft., Humboldt Co., Calif.

(cont.) Oct. 19, 1935.

of the bull elk, I took another photograph, as he raised his head and looked at us.

The elk would let Mr. Smedberg approach to within 25 feet and would then walk away a few steps. The wind was blowing from us toward the elk. We three men smoked and talked for ten minutes or more, while the elk continued calmly grazing. He was quite definitely eating the short green grass, which was closely cropped all over the hillside.

The radio aerial wire with which the elk had become entangled some time past was still showing on his horns. A short piece of wire had evidently become embedded in the horn, Mr. Smedberg said.

Orr and I saw where the elk had eaten Ceanothus, salal and iris leaves.

The bull elk fed on the grass for over an hour and then lay down on a bare promontory 100 ft. above and overlooking the beach and ocean.

Orr and I looked for the cows of this herd but were unsuccessful in our search. Mr. Smedberg told us that the mating season was just concluded and that the bull had been by himself for the past few days. He said the bulls commenced rubbing the velvet

Boyes Prairie, Prairie Creek State Park, 33.
240 ft., Humboldt Co., Calif.

[cont.) Oct. 19, 1935.

from their horns about Aug. 15, were busy at this until Sept. 15 and that the mating season was from Sept. 15 until the middle of Oct.

After lying down for about half an hour the elk arose and resumed grazing.

Near the small fresh-water lake some 200 yds. inland from tidewater, I noticed a bittern, a green-backed goldfinch, two marsh wrens and a grebe.

When it became dark, we drove back to camp. Weather - clear.

Oct. 20, 1935.

During the morning I worked on my report.

In the afternoon I drove north on the highway four miles, walked in about a mile and a half by trail and carried out the remainder of the elk skeleton mentioned Oct. 19.

I then drove north to the town of Klamath on the Klamath R., to make inquiries about a herd of elk I had heard had been seen up the Klamath R. by one of the boatmen.

All the information I was able to get was very vague, so I gave up my intention of any further investigation and returned to camp.

Weather - clear.

Boyes Prairie, Prairie Creek ~~State~~ Park, 240 ft., Humboldt Co., Calif.

Oct. 21, 1935.

I drove south to Mr. Konrad's ranch, who had offered to take a walk toward the ocean with me. While waiting for him, I asked Mr. Orr, who was stopping at an auto camp across the road, if he would care to join us. Orr was interested, so we three left Konrad's ranch and started climbing the open hill to the west.

We walked over open hillside to a point ½ mi. west of Konrad's ranch house. Portions of this hillside land were overgrown with bunch grass, bracken, huckleberry, salal, ceanothus, thimbleberry and alder. A few manzanita bushes and one madroña were seen. Perhaps 50% of this hillside land is covered with brush. The remainder is grassland. Sheep are pastured thruout the year on Konrad's 180 a. ranch, and on Wilson's land, 120 a., west of and adjoining that of Konrad. The sheep remain on the grassland almost exclusively, seldom entering or feeding on any of the forms of brush. Of the elk which we were told formerly ranged and grazed on this hillside, we saw no recent sign. There is sufficient evidence to indicate that these elk graze considerably whenever opportunity and conditions permit. I am convinced that the presence of sheep on the

Feathers
1935.

Boyes Prairie, Prairie Creek State Park, 240 ft. 35.
Humboldt Co., Calif.

(cont.) Oct. 21, 1935.

grassland is responsible almost solely for the absence of the elk from the entire vicinity, although the sheep apparently do not enter ~~the~~ brushy areas or timbered land where the elk would naturally spend considerable time.

We walked thru the timbered area (Sitka spruce and redwood) for a distance of about one mile, in a westerly direction, and then emerged on the open hillside. Old indications of the presence of elk were numerous, but only one fresh track was seen.

On the hilltops at about 400 ft. elevation, among thick growths of bracken and short salal brush, Cyladontia burrows and tunnels were very numerous, the colonies covering areas of one acre or more. This was on sunny, dry land.

Birds seen during the walk were: Oregon jay, 3; Song sparrow, 2; wren-tit, 1; flicker, 5; sparrow hawk, 1; winter wren, 5; Steller jay, 1.

As we returned, I took some some photographs of the area. When we reached Konrads, I drove back to camp.

The remainder of the day was spent working on my report and in getting off some mail.

Feathers
1935.

Boyes Prairie, Prairie Creek State Park, 240 ft., 36.
Humboldt Co., Calif.

Oct. 22, 1935.

In the morning, I went south from camp, on the road bordering Boyes Prairie on the west, to where the Lower Gold Bluff Trail commences. Hereabouts there was much sign of cattle having grazed. A half dozen or more head of cattle were seen. The grass was everywhere closely cropped. No sign of elk having been in the meadows here recently, was seen.

I walked west on the Lower Gold Bluff trail a few hundred yards, to an area which had recently been logged over. Practically no bird or mammal life was noticed here. On leaving here, and continuing westerly, I missed the trail, and was some time in re-locating it. I continued west on the trail for about one mile, to where it was crossed by a newly graded logging road.

I walked northwest on the road about a mile, to the end of the present grading work. On this road, deer tracks were fairly numerous, but very few tracks of elk were seen; probably no more than those of two elk.

From here, I walked west along the top of a ridge. About one quarter of a mile from the end of the road, I heard noisy movements in the woods. A short distance farther on, I noticed fresh tracks of two elk on the ridge.

Boyes Prairie, Prairie Creek State Park, 240 ft., Humboldt Co., Calif.

[cont.] Oct. 22, 1935.

The tracks were those of running animals, traveling west on top of the ridge. Logs, brush and down timber had been easily negotiated by the elk.

After following these tracks ¼ mi., I noticed a cow and a spike bull elk standing in open timber, on top of a divergent ridge. They remained motionless for some time, while I watched from a distance of 100 yds. I then approached to within 50 yds. Here I walked out upon a fallen redwood log, to one end about fifteen fut above the ground. This was a fine position for observing the elk. At this time the cow elk commenced making a peculiar throaty sound, which might be termed a whistle. It gave me the impression of a prolonged, hoarse, dog's bark. The cow continued whistling at intervals, and walked back and forth over a short route. All during this, the young bull remained more or less in the same position, nervously picking up his legs and setting them down with deliberation.

As I moved back and forth along the log, I was quite visible to the elk and, with the wind carrying my scent in their direction, must certainly have been identified by the elk.

The attitude of defiance exhibited by

(cont.) Oct. 22, 1935.

the cow, continued until I was within 50 yards. Then she wheeled and trotted off thru the brush and down the ridge, the spike bull following close behind. They were in good condition.

From this point, I walked in a northerly direction. I followed a ridge which ran down into Squashan Creek basin. When near Squashan Creek, I jumped a doe deer, which ran across a small ravine, stopped, and looked back at me. The doe was fat and looked to be in good condition. Elk sign was quite plentiful in Squashan basin. I walked down the creek about ¼ mi. Recent elk sign was found all through this territory.

I climbed a ridge, running north, and walked along it until I came to the Upper Gold Bluff trail. It was quite evident during this walk, that fresh elk sign was far more plentiful from ¼ to ½ mi. of the coast, than it was farther inland.

As I returned, east on the Upper Gold Bluff trail, I saw a pileated woodpecker at work, about 75 feet up in a dead hemlock. I timed the strokes of his bill, while he was pecking continuously, and found they averaged about 80 per minute. He completed three holes in 5 minutes. I walked on, and arrived at

Feathers. 1935. Boyes Prairie, Prairie Creek State Park, 240 ft., Humboldt Co., Calif. 39.

[cont.] Oct. 22, 1935.

camp at 4 P.M.

I heard reports of elk having been seen near where the CCC men have been dumping logs, in a canyon west of the highway, about 1 mi. S. of the Del Norte Co. line. I drove up there and inspected the nearby vicinity, but saw no fresh sign. I then returned to camp.

During my absence Mrs. Feathers had captured a brush rabbit, which had run into the house, while fleeing from a dog.

Birds and mammals identified during the day were: 2 fox sparrows, 5 ravens, 6 chickarees, 5 winter wrens, 5 varied thrush, 5 chickadees, 1 pileated woodpecker.

Weather - clear.

Oct. 23, 1935.

With Mrs. Feathers, I drove north on the Redwood highway to a point 1 mi. S Del Norte Co. line. Here we turned east on the East Ridge road and drove south 2 mi. At this place, I left the car, which Mrs. F. drove back to camp. I then walked south, making occasional circuitous walks off on each side of the road. I continued on in this manner to the end of the road, about 2 miles. No signs of elk were seen during this time.

Feathers. 1935. Boyes Prairie, Prairie Creek State Park, 240 ft., Humboldt Co., Calif. 40.

(cont.) Oct. 23.

From the end of the road, I walked south along the newly constructed East Ridge trail 1 mi. to where a CCC crew was working. The foreman told me he had seen a cow elk a short distance south on this ridge some two weeks previously. He said they frequently saw elk tracks in the trail as they walked to work in the morning.

In my walk up to the summit of this ridge, I had noticed that from 1200 ft. to the top (1500 ft.), tan oaks and Douglas firs were quite numerous among the hemlocks and redwoods. Rhododendron and Oregon grape were the predominant shrubs.

I left the foreman and walked east, down off the main divide ½ mi., into the headwaters of Ah Pah Creek. On my way back up, I first heard and then saw two cow elk. They had jumped, in alarm, and then run probably 50 yards, before stopping to look at me. After having identified them, I moved forward. They became startled, and ran off downhill, making considerable noise. During this walk down into the Klamath watershed, I had seen considerable sign of elk having been in that area recently.

I regained the summit of the main divide

(cont.) Oct. 23.

and continued walking south along the route marked for trail construction. Near the headwaters of Brown Creek, I left the ridge and started down into the rough canyon country to the west.

There was some elk sign throughout this territory, and indications of the recent activities of a bull, such as: huckleberry bushes torn and broken by antlers, and ground pawed and torn up.

Travel down this canyon was extremely difficult, owing to the presence of rock cliffs, heavy undergrowth of huckleberry, salal and sword fern, and an unusually heavy maze of fallen timber.

I emerged on the highway ¼ mile north of culvert No. 417+00, at about 5:50 P. M. As I walked south along the highway, I saw a bat fly overhead. I was unable to determine its identity, but noticed the time was 6:10 P. M. It was very cold. I could not find a thermometer when I returned to camp, but the mornings have been frosty for the past two days.

Birds and mammals were: varied thrush s, winter wren s, chickadee s, chickaree s.

Weather - clear.

Oct. 24.

In the morning I visited the ranch of Mrs. Boyes, directly across the highway from the camp grounds. I learned that she was away and would be gone for a week or more. I had wished to question her in regard to the releasing of elk on her property sometime in the past.

I then drove to Mr. Davison's ranch. The elk had done no material damage to his carrot patch, since the first study of this ground, made by Mr. Russell and myself over a week before.

Fresh tracks of two or three elk were found. I took some photographs of the carrot field, and also, as we were leaving the ranch I took a photo comprehending the general territory.

I returned to Boyes' Ranch, and photographed two redwood logs, serving in part as a fence, to show markings thereon, made by the ~~hoofs~~ hoofs of elk in jumping over the logs. I walked around in this vicinity, endeavoring to find a rubbing tree to photograph. I found none suited to my purpose, so returned to camp.

The afternoon was spent in packing, and preparing for our departure for Berkeley.

Feathers
1935

Bayes Prairie, Prairie Creek State Park, 43.
240 ft., Humboldt Co., Calif.

Oct. 25.

Mrs. Feathers, my daughter and I, left camp at Prairie Creek State Park, for Berkeley, at 6:30 A. M. Between camp and Orick, ten brush rabbits were seen along the highway. Another item of interest on the return journey, was a gull, sitting on a telephone wire, between Arcata and Eureka.

By traveling via the Redwood Highway and the Richmond - San Rafael ferry, Berkeley was reached at 6:30 P. M.

Feathers
1935.

Boyes Prairie, Prairie Creek State Park, 240 ft., 44.
Humboldt Co., Calif.
Oct. 6, 1935.

6 ½ mi. NNE Orick, 400 ft., Humboldt Co., Calif.

Oct. 6 255. Frog.

Oct. 6 256. Frog.

½ mi. E Pacific Ocean, 200 ft., 7 mi. N Orick, Humboldt Co., Calif.

Oct. 8 257. Elk antlers.

El. 600 ft.
¼ mi. N center of section 22, R12N1E, H. B. M., Humboldt Co., Calif.

Oct. 19. 258. ♂ Elk skeleton.